January 11, 1999

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges: Peter B. Bloch, Presiding Officer Thomas D. Murphy, Special Agent

In the Matter of:

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HYDRO RESOURCES, INC. 2929 Coors Road, Suite 101 Albuquerque, NM 87120 Docket No. 40-8968-ML ASLBP No. 95-706-01-ML

HYDRO RESOURCES, INC.'S BRIEF IN OPPOSITION TO THE BRIEFS SUBMITTED BY INTERVENORS EASTERN NAVAJO DINE AGAINST URANIUM MINING, SOUTHWEST RESEARCH AND INFORMATION CENTER, GRACE SAM, AND MARILYN MORRIS ON THE ISSUE OF PERFORMANCE-BASED LICENSING

I. INTRODUCTION

On January 5, 1998, the United States Nuclear Regulatory Commission ("NRC") issued source material license SUA-1508 to Hydro Resources, Inc. ("HRI") for the in situ leach ("ISL") mining project proposed by HRI for Crownpoint, New Mexico, and which includes the Crownpoint, Unit 1, and Church Rock sites. In accordance with the Court's Order of September 22, 1998, this initial phase of the hearing requested by Intervenors is limited to issues pertaining to Section 8 of the project (Churchrock) and to those issues that pertain to the project generally.

Eastern Navajo Dine Against Uranium Mining ("ENDAUM"), Southwest Research and Information Center ("SRIC"), and Grace Sam and Marilyn Morris ("Sams")(collectively, "Intervenors") all challenge the propriety of a performance-based license condition in HRI's

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source material license.¹ For the reasons set forth below, Intervenors' objections to the referenced license condition are inappropriate, ill-considered, and/or inaccurate. Consequently, Intervenors' objections to the subject license condition must be dismissed.

II. ARGUMENT

A. Intervenors' Challenge To HRI's Source Materials License Is Not An Appropriate Forum For Challenging NRC's Performance Based Licensing Policy.

As noted by Intervenors,² NRC developed its Performance Based Licensing ("PBL") policy for ISL sites during the summer of 1994. This policy resulted directly from the Chairman's request that NRC "staff explore ways to reduce the regulatory burden of uranium recovery licensees without compromising protection of health and safety and the environment."³ Among other recommendations, NRC staff proposed to incorporate performance based license conditions in uranium recovery licenses that would allow licensees to make minor operational changes, under certain conditions, without NRC approval. Since implementing this policy,

See "Eastern Navajo Dine Against Uranium Mining's and Southwest Research and Information Center's Brief in Opposition to Hydro Resources, Inc.'s Application for a Materials License With Respect to: Performance Based Licensing Issues," December 7, 1998; "Second Written Presentation of Grace Sam and Marilyn Morris," December 11, 1998.

² See ENDAUM and SRIC brief at 2; see also, September 2, 1994 "Holonich Letter," Exhibit 1 to ENDAUM and SRIC brief; August 26, 1994 Memorandum from James M. Taylor, Executive Director for Operations, NRC, to Commissioners of the NRC, "STAFF EFFORTS TO REDUCE REGULATORY IMPACT ON URANIUM RECOVERY LICENSEES," and enclosure thereto (Attached hereto as Exhibit A).

³ Exhibit A at 1.

performance based license conditions ("PBLCs") have been incorporated in at least four uranium recovery licenses, including at least three ISL licenses.⁴

Intervenors' briefs appear to take issue both with NRC's policy of employing performance based license conditions generally and with the incorporation of a performance based license condition in HRI's source materials license in particular.⁵ This hearing of Intervenors' challenge to HRI's validly issued license to conduct in situ leach uranium mining is not the appropriate forum for a broad-based challenge of NRC policy.

The issue properly before this Court is the validity of HRI's license SUA-1508. HRI vigorously contends that SUA-1508 is a valid license whether or not the performance-based license condition is upheld. This is because, as detailed below, the performance-based license condition in HRI's license is not of great practical significance; the type of decision-making that is allowed without a license amendment under HRI's performance-based license condition is of the same kind that, in most instances, source materials licensees probably could make without an amendment in any event.⁶ Performance-based licensing, in this context, serves primarily to force a management organization upon this type of decision-making that may not have existed previously.

B. The Performance-based License Condition Is A Rational And Appropriate Tool For Implementing The Performance-based Appendix A Requirements.

Intervenors' attack on NRC's implementation of the performance-based licensing concept fails to place the performance-based license condition concept in its proper context and

⁴ <u>See, e.g.</u>, source materials licenses - - Cogema Mining, Inc. (SUA-1341); Power Resources, Inc. (SUA-1511); Crow Butte Resources, Inc. (SUA-1534); Envirocare of Utah, Inc.

⁵ See ENDAUM and SRIC brief at 10-18; Sam's brief at 2, 4-9.

⁶ See, e.g., discussion at 21, infra.

fails to appreciate its practical significance. As discussed at length in HRI's previous filing, experience with and understanding of uranium recovery operations, and particularly in situ leach ("ISL") operations, has convinced the NRC of the relatively minimal risk to health, safety, and the environment inherent in these operations. Moreover, NRC has, in its regulations and policies implementing those regulations, tried to be mindful of the site-specific nature of the operational issues that arise in connection with uranium recovery operations and has intentionally built flexibility into the regulatory scheme to license operations that are practical and efficient and still protective of health, safety, and the environment.

As was also discussed in HRI's previous filing, an understanding of the development of the Appendix A criteria underscores the flexibility that NRC has tried to bring to this regulatory scheme and which finds fruition, in some small measure, in the performance-based license condition. Subsequent to the issuance of EPA's general standards for active sites, the Commission undertook rulemaking proceedings to bring its 1980 mill tailings regulations into conformity with the EPA standards.⁷ Those proceedings culminated in the promulgation of the Commission's 1985 regulations, amending the earlier 1980 requirements.⁸ Many of the 1985 criteria, again appearing as Appendix A to 10 C.F.R. Part 40, were unchanged from the 1980 version. The Commission changed some criteria to conform to the EPA standards and essentially duplicated them. For example, Criterion 6 was amended to adopt both EPA's radon emission limits for disposal areas and its longevity standard, requiring waste areas to be designed to control radiological hazards "for 1,000 years, to the exten[t] reasonably achievable; and, in

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⁷ <u>See</u> 49 Fed. Reg. 46,418 (1984) (codified at 10 C.F.R. Part 40, Appendix A) (proposed Nov. 28, 1984).

⁸ 50 Fed. Reg. 41,852 (1985).

any case, for at least 200 years."⁹ The criteria that remained essentially identical to the Commission's 1980 regulations were Criteria 2, 3, 4, 7, 8A, and portions of each of the others.¹⁰ The 1985 criteria that the Commission revised to conform to EPA's general standards were parts of the Introduction, Criteria 1, 5, 6, and 8.¹¹

With respect to the Introduction, the first three paragraphs of the Introduction to Appendix A remained essentially unchanged from 1980. The Commission, however, added a new fourth paragraph in the 1985 regulations to implement one of the 1983 amendments to UMTRCA. As previously noted, that amendment added section 84c to the AEA in order to provide site-specific flexibility in licensing by permitting licensees to propose alternatives to Commission mill tailings requirements. The new fourth paragraph of the Introduction is virtually identical to the statute and states:

Licensees or applicants may propose alternatives to the specific requirements in this Appendix. The alternative proposals may take into account local or regional conditions, including geology, topography, hydrology, and meteorology \dots^{12}

The 1985 regulations also added a fifth paragraph to the Introduction, reiterating the 1983 amendment to UMTRCA and the AEA that was intended to clarify the factors the NRC should consider in regulating mill tailings. The new fifth paragraph to the Appendix A Introduction paraphrases the UMTRCA amendment:

All site specific licensing decisions based on the criteria in this Appendix or alternatives proposed by licensees or applicants will

⁹ 10 C.F.R. Part 40, Appendix A, Criterion 6; see 50 Fed. Reg. at 41,857-58.

 ¹⁰ See Quivira Mining Co. v. NRC, 866 F.2d 1246, 1252-58 (10th Cir. 1989).
 ¹¹ Id.

¹² 10 C.F.R. Part 40, Appendix A, Introduction; see 50 Fed. Reg. at 41,856.

take into account the risk to the public health and safety and the environment with due consideration to the economic costs involved and any other factors the Commission determines to be appropriate. In implementing this Appendix, the Commission will consider "practicable" and "reasonably achievable" as equivalent terms. Decisions involved [sic] these terms will take into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of atomic energy in the public interest.¹³

Acknowledging that site-specific factors may dictate precise means of compliance at any particular site, Part 40 of the regulations and the compliance criteria in Appendix A created performance-directed objectives emphasizing flexibility, rather than prescriptive prerequisites to licensing. Thus, the statute and the implementing regulations clearly recognize and make allowance for the fact that mill tailings management, and to a greater extent, ISL mining, are relatively low-risk activities requiring regulatory flexibility to account for the unique circumstances posed by the natural systems in which these activities take place.

C. The Performance-based License Condition Does Not Violate The Atomic Energy Act, The Administrative Procedures Act, Or The National Environmental Policy Act.

Intervenors complain that the performance-based license condition incorporated in HRI's license violates the Atomic Energy Act ("AEA"), the Administrative Procedures Act ("APA"), and the National Environmental Policy Act ("NEPA"). The gist of these allegations is that NRC is not allowed to employ such a license condition because its enabling statute, the AEA, and NRC regulations do not expressly provide for it; Intervenors were not allowed a hearing on the NRC's generic performance-based license condition; NRC's use of the PBLC unlawfully delegates NRC's responsibility to protect public health and welfare and the environment; and

¹³ 10 C.F.R. Part 40, Appendix A, Introduction; see 50 Fed. Reg. at 41,855.

HRI's license condition allows HRI to make minor operational adjustments without seeking a license amendment and, thus, without providing an opportunity for public participation. Intervenors claim that, by incorporating a performance-based condition in HRI's license, NRC has left HRI virtually unregulated, free to alter its operations however it may choose and the consequences be damned. In fact, the sky is not falling and the fox is not guarding the hen house; Intervenors simply misapprehend the performance-based license condition and its practical impact.

Intervenors correctly note that "the use of performance based licensing for source materials licenses is an informal policy developed by the Staff," ¹⁴ but generally they are mistaken in their further assessment of this policy. As a "general statement of policy," rather than a "substantive rule,"¹⁵ performance-based licensing does not require public notice and comment.¹⁶ Source materials licensees are not required to accept a performance-based license condition in their licenses, nor is NRC staff required to incorporate such a condition in each license issued. Thus, this policy is not binding on the NRC or on the public.¹⁷ As a general

¹⁴ ENDAUM and SRIC brief at 13.

¹⁷ One critical characteristic distinguishing substantive rules from statements of policy is that policy statements are not binding on the public, the courts, or the agency. <u>See</u> Davis, <u>Administrative Law Treatise</u>, §6.2. However, NRC staff publicly discussed the Footnote continued on next page

¹⁵ See Public Citizen, Inc. v. NRC, 940 F.2d 679, 681-682 (D.C. Cir. 1991) ("In determining whether an agency statement is a substantive rule, which requires notice and comment, or a policy statement, which does not, the ultimate issue is 'the agency's intent to be bound."" (citation omitted).

¹⁶ <u>Id.</u>; <u>see also</u>, Administrative Procedures Act §553(b) (notice and hearing requirement inapplicable to agency interpretative rules or general statements of policy); (a directive merely providing guidance to agency officials in exercising their discretion while preserving their flexibility and their ability to make "individualized determinations" constitutes a general statement of policy. <u>Municipality of Anchorage v. United States</u>, 980 F.2d 1320, 1324-25 (9th Cir. 1992) (citations omitted).

agency policy, performance-based licensing is entitled to substantial deference¹⁸ and is to be disturbed only if the policy is arbitrary and capricious.¹⁹ Agency policy need not rest on express statutory authority, it need only be consistent with an agency's enabling statute and mission. The policy need only be rational to avoid being deemed arbitrary and capricious.²⁰ "[T]his is not a difficult standard to meet."²¹

Contrary to Intervenors' contentions,²² the NRC, including staff, the Chief of the High-Level Waste and Uranium Recovery Projects Branch, the Executive Director for Operations, and the Commissioners, participated in developing the performance-based license condition.²³ Development and implementation of the performance-based license condition was not intended by NRC as a change in policy – the performance-based license condition is not being employed in lieu of something else – but rather as an additional tool, consistent with existing policy, to ease

Footnote continued from previous page

¹⁹ Citizens Awareness Network, Inc. v. United States Nuclear Regulatory Commission, 59 F.3d 284, 290-291 (citations omitted).

²⁰ Id. (citing Adams v. EPA, 38 F.3d 43, 49 (1st Cir. 1994)).

²¹ Id. at 291.

²² See, e.g., ENDAUM and SRIC brief at 14-15.

development of performance-based licensing for uranium recovery facilities at multiple meetings.

¹⁸ <u>Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Ins. Co.</u>, 463 U.S. 29, 41, 77 L. Ed. 2d 443, 103 S. Ct. 2856 (1983). <u>See, also</u>, Bernstein v. Sullivan, 914 F.2d 1395, 1400 (10th Cir. 1990) ("[a]n administrative agency's interpretation of a statute which it is entrusted to administer is entitled to considerable deference").

²³ See, <u>e.g.</u>, Exhibit A. Letter from Joseph J. Holonich, Acting Chief, Uranium Recovery Branch, NRC to James Gilchrist, Vice President, American Mining Association, February 15, 1994 (attached hereto as Exhibit B); "Notice of Significant Meeting," from Joseph J. Holonich, Chief, High-Level Waste and Uranium Recovery Projects Branch, NRC, July 19, 1994 (attached hereto as Exhibit C).

somewhat the regulatory burden on licensees without any reduction in protection of public health and safety. As stated in the staff's report to the Commission:

> The performance-based license condition is structured such that uranium recovery licensees are required to submit applications for all license amendments, unless they can demonstrate that the provisions specified in the performance-based license condition have been satisfied. In addition, the performance based license condition provides the same degree of flexibility contained in the regulations and licenses for other nuclear facilities, and is consistent with established NRC policy. . . . the condition allows appropriate decisions to be made by licensees without explicit NRC approval, while ensuring adequate protection of the public health and safety and the environment.²⁴

Intervenors cite one case in support of their argument that the NRC policy of employing

performance-based license conditions is arbitrary and capricious; that case does not apply. In

Citizens Awareness Network v. United States Nuclear Regulatory Commission, supra., the Court

did find an NRC change in policy to be arbitrary and capricious. Citizens Awareness, however,

presented facts dramatically different than those before this Court. As the Citizens Awareness

Court stated

The prior Commission policy regarding decommissioning, embodied in 10 C.F.R. §50.59 and explicated in the Commission's published Statement of Consideration, required NRC approval of a decommissioning plan before a licensee undertook any major structural changes to a facility. This policy was developed through a lengthy notice and comment period, with substantial public participation. (Federal Register citations and parenthetical statement omitted). The Commission adhered to this policy for almost five years, reiterating its position in at least two adjudicatory decisions. Then, rather suddenly, the Commission circulated two internal staff memos that *completely reversed this settled policy*, without any notice to the affected public. More troubling, however, was the Commission's failure to provide in those memos, or anywhere else, *any justification or reasoning whatsoever for the change*. With nothing more than a breezy

²⁴ Exhibit A at 2.

"notwithstanding," the Commission abruptly disposed of five years' worth of well-reasoned, duly-promulgated agency precedent."²⁵

Adopting a policy favoring the inclusion of a performance-based license condition in source materials licenses is not the type of policy development that so troubled the Court in <u>Citizens Action</u>. The developing policy of employing a performance-based license condition in in situ leach uranium recovery licenses is by no means "suddenly" and "completely" reversing "settled policy." NRC, by implementing performance-based license conditions, does not "abruptly dispose(d) of five years' worth of well-reasoned, duly promulgated agency precedent."²⁶ Rather, the implementation of a performance-based license condition is completely consistent with the practical flexibility that NRC has been trying to build into this regulatory scheme for nearly twenty years.

It is important also to realize what, exactly, the generic performance-based license condition such as is incorporated in HRI's license provides. The PBLC employed in HRI's license and in the licenses of several other ISL operations is based on the provision developed for *reactor licensees* and set forth at 10 C.F.R. Part 50.59. It allows the licensee to make changes to its operations without seeking a license amendment *but only to the extent that such changes are consistent with all license conditions and applicable regulations and do not result in any degradation in the licensee's commitments to protection of public health, safety, and the environment. As discussed elsewhere herein, such changes must be approved by the licensee's Safety and Environmental Review Panel; fully documented; and reported to NRC annually. Contrary to Intervenors' assertions, NRC does not, by use of the PBLC, delegate its*

²⁶ <u>Id</u>.

²⁵ <u>Citizens Awareness Network, supra.</u>, at 291.

responsibility to protect the public and the environment. Rather, NRC reviews SERP-approved operational changes with particularly close scrutiny, both in response to annual reports and during routine inspections. Moreover, as is the case under non-PBLC licenses, the licensee remains ultimately responsible for all of the day-to-day operational decisions that must be made. Whether operating under a license containing a PBLC or a license not containing such a provision, licensees must determine, on a daily basis, whether various operational activities are or are not consistent with license requirements; a wrongful determination subjects PBLC and non-PBLC licensees alike to NRC enforcement action and penalty.²⁷

What kinds of operational changes does a PBLC really allow a licensee to make without seeking a license amendment? The answer depends, in part, on what other conditions are contained in or incorporated into a particular license. Some of the changes that NRC has suggested do not require prior NRC approval and a license amendment include changes to the licensee's health physics staff, including the Radiation Safety Officer and Radiation Safety Technician, licensee corporate organizational changes which do not affect the licensee's health and safety commitments or surety, operational/equipment changes that will not result in any significant adverse environmental or public safety impacts, such as changing the size or configuration of a yellowcake dryer or ion exchange unit.²⁸ Express license requirements and the level of safety attained thereby may not be altered; thus, groundwater sampling frequency and the parameters analyzed may not be changed, but the lab employed to perform the analyses may. Contrary to Intervenors' characterization, the generic performance-based license condition

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²⁷ As exemplified by HRI's burden of defending its license in this hearing, the ultimate responsibility is always upon the licensee for ensuring the validity of its license and all actions take thereunder.

²⁸ See Exhibit A, Enclosure 2, Attachment A.2, pp. 4-8.

reflects NRC's attempt to bring common sense to the regulation of licensees' day to day operational activities.

- D. Inclusion Of A Performance Based License Condition Does Not Render HRI's License Defective And Does Not Warrant Revoking The License.
 - 1. HRI's license was properly granted in accordance with 10 CFR Part 40.32.

As discussed in HRI's prior submittal, 10 C.F.R. Part 40.32 provides, in pertinent part,

that:

An application for a specific license will be approved if:

(a) The application is for a purpose authorized by the Act; and
(b) The applicant is qualified by reason of training and experience to use the source material for the purpose requested in such manner as to protect health and minimize danger to life or property; and
(c) The applicant's proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life or property; and

(d) The issuance of the license will not be inimical to the common defense and security or to the health and safety of the public; and (e) In the case of an application for a license . . . to possess and use source . . . material for uranium milling . . . or for the conduct of any other activity which the Commission determines will significantly affect the quality of the environment, the Director of Nuclear Material Safety and Safeguards or his designee, before commencement of construction of the plant of facility in which the activity will be conducted . . . has concluded, after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. . . .

10 C.F.R. Part 40.32 (emphasis added). After reviewing thousands of pages of data and

information submitted by HRI over a ten year period, NRC staff determined that HRI's license

application satisfied each of the foregoing requirements and granted HRI the requested license.

Intervenors themselves have characterized the record upon which NRC staff based its

determination thus:

HRI filed its original license application in the spring of 1988, and has amended it a number of times. . . . Between 1992 and 1997, HRI also submitted a large number of reports, analyses, and responses to NRC comments, in support of its license application. (citation omitted). During this period, the NRC Staff requested additional information from HRI on 99 discrete issues in at least six rounds of requests. These Requests for Additional Information (hereinafter "RAIs") cover a broad range of health and safety and environmental issues, such as ground water restoration standards, historic sites and cultural resources. In response, HRI submitted thousands of additional pages of new data and explanatory information. NRC Staff's reviews of HRI's responses to RAIs also generated requests for clarification, in response to which HRI repeatedly revised and supplemented its responses.²⁹

The huge record is testament to the years-long process of HRI submitting relevant

information, NRC staff casting a critical eye on that information and requesting supplementary

information, HRI submitting the requested supplementary information, and NRC staff carefully

scrutinizing that information, until the staff was satisfied that all requirements had been met.³⁰

⁹ See ENDAUM and SRIC brief at 21.

Inexplicably, ENDAUM and SRIC conclude that "[T]he license is arbitrary and capricious 30 because its performance based licensing provisions create considerable confusion as to what constitute (sic) the terms of HRI's license. Very few requirements are described in HRI's license. To determine what the regulatory limits are on HRI's operation, a regulator - or a member of the public who wishes to evaluate HRI's compliance with its license – must ferret through the 49 submittals listed in Attachment A to the license. (ENDAUM and SRIC brief at 17)(emphasis added). Thus, ENDAUM and SRIC appear to argue that HRI's license is "arbitrary and capricious" because it incorporates too much information and too many conditions. ENDAUM and SRIC go on to argue that because HRI's license "submittals consist of thousands of pages of assertions and commitments... . HRI's performance-based license condition must be rejected pursuant to the Administrative Procedures Act because the license is irrational and therefore arbitrary and capricious." (citation omitted) (Id.)(emphasis added). ENDAUM and SRIC again appear to be suggesting that HRI's license incorporates so much information and so many conditions that the license is "irrational" and, consequently, that "the performance-based license condition must be rejected." These assertions are simply illogical. The fact that Footnote continued on next page

Pursuant to 10 C.F.R. Part 40.32, NRC staff properly issued HRI's license upon completion of this review.

2. HRI's License Condition LC 9.4. Is A "Performance-Based" License Condition

The performance-based license condition was developed by NRC staff during 1994 in

response to the NRC Chairman's call for new ways to reduce the regulatory burden on uranium

recovery licensees without compromising protection of public health and safety and the

environment.³¹ To this end, the staff developed a performance-based license condition consistent

with the Commission's regulations and licenses for other facilities and modeled on the

provisions of 10 C.F.R. Part 50.59. The idea is to allow licensees, without prior NRC approval,

to make changes to, or to conduct tests or experiments at, their facilities so long as all provisions

of the performance-based license condition are satisfied.³²

HRI's SUA-1508, LC 9.4 provides that

A) The licensee may, without prior NRC review or approval:
 (i) make changes in the Crownpoint Project's facilities or processes as described in the COP (Rev. 2.0); (ii) make changes in its standard operating procedures; and (iii) conduct tests or

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Intervenors are unable or unwilling to carefully evaluate the record upon which NRC staff based its licensing decision (which happens also to be the source of many of the license conditions; see License Condition 9.3), does not make NRC's issuance of the license, the license itself, or any of the license conditions, arbitrary and capricious. Intervenors' complaint that HRI's license application contained too many attachments is particularly disingenuous coming from ENDAUM and SRIC, who routinely have filed pleadings in this matter accompanied by dozens of attachments. See, e.g., Petition of ENDAUM and SRIC for Review of LBP-98-5, April 10, 1998; ENDAUM's and SRIC's Second Amended Request for Hearing.

³¹ See Exhibit A.

³² Id. at pp. 1-2 of attachment.

experiments, if the licensee ensures that the following conditions are met:

(1) the change, test, or experiment does not conflict with any requirement specifically stated in this license, or impair the licensee's ability to meet all applicable NRC regulations;

(2) there is no degradation in the safety or environmental commitments made in the Crownpoint Uranium Project Consolidated Operations Plan (COP), Revision 2.0, or in the approved reclamation plan for the Crownpoint Project; and

(3) the change, test, or experiment is consistent with NRC's findings in NUREG-1508, the Final Environmental Impact Statement (FEIS, dated February 1997) and the Safety Evaluation Report (SER, dated December 1997) for the Crownpoint Project.

If any of these conditions are not met for the change, test, or experiment under consideration, the licensee is required to submit a license amendment application for NRC review and approval. The licensee's determinations as to whether the above conditions are met will be made by a Safety and Environmental Review Panel (SERP). All such determinations shall be documented, and the records kept until license termination. All such determinations shall be reported annually to the NRC, pursuant to LC 12.8. The retained records shall include written safety and environmental evaluations, made by the SERP, that provide the basis for determining whether or not the conditions are met.

B) The SERP shall consist of a minimum of three individuals employed by the licensee, and one of these shall be designated the SERP chairman. One member of the SERP shall have expertise in management and shall be responsible for managerial and financial approval changes; one member shall have expertise in operations and/or construction and shall have responsibility for implementing any operational changes; and, one member shall be the Environmental Manager, with the responsibility of ensuring that changes conform to radiation safety and environmental requirements. Additional members may be included in the SERP as appropriate, to address technical aspects such as health physics, groundwater hydrology, surface-water hydrology, specific earth sciences, and other technical disciplines. Temporary members or permanent members, other than the three above-specified individuals, may be consultants.³³

Intervenors strive to create the impression that the PBLC, LC 9.4, provides HRI virtual carte blanche to "unilaterally" modify its license in any manner it might see fit and that NRC somehow abdicates its responsibility to safeguard public health and the environment by issuing a license containing such a condition. One need only read LC 9.4 in conjunction with LC 9.3 to see that this is not so.

License Condition 9.3 makes clear that "[W]henever the licensee uses the word "will" or "shall" in the aforementioned licensee documents" (i.e., the submittals listed in Attachment A to the license Application and the COP, Rev. 2), it denotes an enforceable license requirement."³⁴ Thus, among HRI's "49 submittals listed in Attachment A" and the "thousands of pages of . . . commitments" that ENDAUM and SRIC apparently find so inconvenient, are the hundreds of "will"s and "shall"s that, pursuant to LC 9.3, constitute enforceable license requirements. The performance-based license condition, 9.4, expressly states that **the only changes, tests, or experiments** allowable under the PBLC **must not conflict with any specifically stated license requirement**. As discussed in Section C, below, and in Table 1 attached hereto, the number and breadth of express requirements in HRI's license restrict application of the PBLC to a very few, discrete, operational changes.

Not only must any PBLC-based proposed changes not **conflict** with any license requirements, but such changes cannot result in any "**degradation** in the safety or environmental commitments made in the" COP Rev. 2.0 or the approved reclamation plan.³⁵ In addition, such

³³ Source Material License SUA-1508, LC 9.4.

 $^{^{34}}$ <u>Id</u>. at LC 9.3.

³⁵ <u>Id</u>. at LC 9.4(A)(2).

changes must be "**consistent** with NRC's findings in NUREG-1508, the Final Environmental Impact Statement (...) and the Safety Evaluation Report. ...³⁶ Whether any proposed operational change satisfies the condition would have to be determined by HRI's three-member Safety and Environmental Review Panel ("SERP"). All such determinations must be documented and reported annually to the NRC. NRC may, upon such annual review or at any inspection, determine that the change did not satisfy the condition (and in fact required a license amendment) and bring an enforcement action against HRI.

- E. HRI's PBLC Actually Allows Only Very Limited Operational Changes Because All Significant Functions Are Governed By Prescriptive License Conditions.
 - 1. What does HRI's license require?

Contrary to Intervenors' assertion that HRI's license "does not set forth most of the conditions that must be met by HRI in its proposed mining and milling operation in Church Rock and Crownpoint, New Mexico ("the mining operations"),"³⁷ the license contains more than sixty license conditions, exclusive of subparts and of the PBLC, providing clear requirements for many aspects of HRI's planned operations. Moreover, HRI's license specifically binds HRI to the commitments and specifications contained in its application and the FEIS, SER, and COP filed in support thereof.³⁸

License Condition 9.3 provides:

³⁶ <u>Id.</u> at LC 9.4(A)(3).

³⁷ ENDAUM and SRIC brief at 1.

³⁸ Intervenors see fit to complain both because they seem to find that the license is too abbreviated and because the requirements contained in the documents incorporated in the license are too numerous.

The licensee shall conduct operations in accordance with all commitments, representations, and statements made in its license application submitted by cover letter dated April 25, 1988 (as supplemented by the license submittals listed in Attachment A), and in the Crownpoint Uranium Project Consolidated Operations Plan (COP), Rev. 2.0, dated August 15, 1997 – except where superseded by license conditions contained in this license. Whenever the licensee uses the words "will" or "shall" in the aforementioned licensee documents, it denotes an enforceable license requirement.³⁹

Intervenors make the case that HRI's license leaves HRI's operation practically unregulated. Actually reading the requirements made binding on HRI by its license reveals that Intervenors are wrong. Intervenors do not dispute that HRI <u>must</u> conduct its operations "in accordance with all commitments, representations, and statements made in its license application" as supplemented by the forty-nine documents referenced in Attachment A to the license application plus HRI's Crownpoint Uranium Project Consolidated Operations Plan ("COP") Rev. 2.0.

Intervenors cite three examples of operations that, Intervenors allege, "illustrate the types of inconsistencies that make HRI's license terms impossible to discern, and therefore to enforce or monitor."⁴⁰ First, Intervenors complain that "HRI has made significantly different representations in its license application regarding the sequence of development of wellfields on Sections 8 and 17 of the Church Rock site." Essentially, Intervenors' complaint here is that HRI stated in the Church Rock Environmental Report revision submitted in October 1993 indicated that mining would proceed first on Section 17 and later on Section 8, whereas COP Rev. 2.0, submitted in August 1997, states that production will begin first on Section 8, with production on

³⁹ Source Materials License SUA-1508, LC 9.3.

Section 17 to follow.⁴¹ This should not be difficult to understand. HRI had intended to proceed on Section 17 prior to running into the ongoing jurisdictional dispute regarding HRI's request for a UIC permit for Section 17. Once this problem became evident to HRI, HRI adjusted its plans accordingly. This adjustment in mining sequence is made clear by COP Rev. 2.0 which supersedes previous filings to the extent that it may conflict with them. Moreover, NRC does not require that a licensee obtain approval of its proposed project sequence. In fact, to HRI's knowledge, NRC has not required prior approval of mining sequence at any ISL site. Intervenors' comments regarding the potential for recontamination of Section 8 during the subsequent mining of Section 17 reflect Intervenors' misunderstanding of ISL mining and hydrologic concerns associated with it. Water flows downgradient and thus the potential for contamination downgradient of Section 17 is the same whether the aquifer downgradient is restored (i.e., Section 8), pristine, or otherwise. The point is that ISL technology is designed to prevent any downgradient excursion of leach solution; whether or not the aquifer downgradient of a mining site has previously been restored is irrelevant.

Intervenors' second complaint about HRI's license is that there are "significant discrepancies between the license, the application, and the FEIS, regarding the nature of HRI's obligations with respect to the collection of baseline water quality samples."⁴² Intervenors claim that LC 10.21(A) and the FEIS require three consecutive samples from each monitor well, while

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Footnote continued from previous page

⁴⁰ ENDAUM and SRIC brief at 25.

⁴¹ COP Rev. 2.0 at 17.

⁴² ENDAUM and SRIC brief at 28.

COP Rev. 2.0 (at 85) only commits to one.⁴³ Intervenors apparently failed to read the entire statement in COP Rev. 2.0 upon which they rely. That provision reads

Consistent with regulatory requirements, initially, HRI will collect three independent baseline water quality samples from each well. However, based on the consistent results of multiple samples from individual wells taken previously, HRI believes that multiple independent baseline water quality samples from each well will not be warranted. With the concurrence of NRC, HRI will sample each well once, and perform the requisite analysis to determine baseline water quality characteristics.⁴⁴

Finally, Intervenors recycle an argument that they and HRI have briefed previously.

"The license application also contains contradictory information about the size of retention ponds."⁴⁵ Intervenors go on, as they have before, to wring their hands in utter confusion about the number and size of retention/evaporation ponds that HRI plans to construct. Intervenors assert that RAI 29 states that "two ponds of four acres each will be build (sic) at the satellite plants and the six acres of ponds at Crownpoint will be used." Intervenors again complain "HRI does not identify these ponds as either retention or evaporation."⁴⁶

HRI has responded to precisely these assertions in its previous brief. RAI 29 states

During production, a nominal volume of 40 gpm is produced as bleed water. The water will be used as process water and then subjected to reverse osmosis treatment resulting in 30 gpm of product, which will be suitable for reinjection into the Westwater Formation, and 10 gpm of brine, which will require final disposal. Two final disposal options exist for RO brine, evaporation and deep-well injection. At present, HRI's proposal is to evaporate all brine. Evaporation in the project areas is limited to 2.5 gpm/acre

⁴³ Id.

⁴⁴ COP Rev. 2.0 at 85.

⁴⁵ ENDAUM and SRIC brief at 29.

⁴⁶ Id.

(4 acres of ponds will be required for each satellite.) Existing pond capacity at Crownpoint is 6 acres.⁴⁷

RAI 29 does not state that two ponds of four acres each will be built at each satellite. It says that four acres of pond capacity will be needed. Consistent with COP Rev. 2.0, HRI believes that, cumulatively, the ponds will occupy six acres at each location.⁴⁸ HRI does not distinguish between retention and evaporation ponds at the Crownpoint project and did not develop any of the license application materials with the intention of making such a distinction.

2. What may HRI change in accordance with its performance-based license condition?

Upon close review, one finds that HRI's license and the binding requirements incorporated in HRI's license impose on HRI hundreds of requirements, mandating all the significant activities HRI must undertake preliminary to and during mining operations. The license dictates where HRI will mine (COP Rev. 2.0, section 1.1, 1.1.2, 1.1.3; the number and engineering specifications of ponds (COP Rev.2.0, section 2.3); the types of tanks, pumps and piping to be employed (COP Rev.2.0, section 2.4.4, 2.4.5); how yellowcake will be transported (COP Rev.2.0, section 2.5, 2.5.3, 2.5.4, 2.5.5, 2.5.6); how lixiviant and process water will be used and reclaimed (COP Rev.2.0, section 3.1, 3.2, 3.2.1, 3.2.2, 3.3, 3.4); how wastewater will be disposed of (COP Rev.2.0, section 4.4.3, 4.5, 4.5.1, 4.5.2, 4.5.2.1.1, 4.5.2.1.2, 4.5.3.1), and how groundwater shall be monitored (COP Rev.2.0, section 6.1, 6.3, 6.3.1, 6.3.2, 6.4, 6.4.1, 8.6.2). The COP contains hundreds of statements, made binding requirements of HRI's license by LC 9.3, mandating how most every imaginable operational procedure **will** or **shall** be done.

⁴⁷ RAI No. 29.

Operational changes HRI might make in accordance with LC 9.4 (its PBLC) actually are quite few. Byproduct material may be disposed of or sold to a licensee. HRI may change the type of respirators that it uses, may change the laboratory it sends samples to, and may composite air samples for analysis if they are collected at the same location and represent a sampling period of one calendar quarter or less. HRI may choose to employ a larger or smaller ion exchange unit or yellowcake dryer, as suits efficient operation. These types of activities generally come under the rubric of "standard operating procedures," and typically would be subject to change without a license amendment even in the absence of a PBLC.

Changes that HRI might submit to its SERP, in accordance with LC 9.4 are as few or fewer. HRI may choose to change members of its Radiation Safety Team or may choose to alter its corporate organization. HRI may decide to employ underground injection for wastewater (rather than evaporation); HRI would submit this change to its SERP for approval. It is conceivable that HRI may wish to slightly alter well construction; again, this would be submitted to the SERP. If HRI were able to document that the annual dose was less than 10 per cent of the 5 rem annual limit, then HRI might wish to reduce personnel monitoring, upon SERP approval.

While other examples of operational changes appropriately "SERP-able" might arise, they have not even been considered by HRI at this time. The point is that HRI's license is very prescriptive; the performance-based license condition offers slight regulatory relief.

Footnote continued from previous page

⁴⁸ See COP Rev. 2.0 at 29.

III. CONCLUSION

Intervenors paint a picture of performance-based licensing as a case of NRC run amuck, giving free rein to licensees to regulate themselves, without NRC oversight and without consequence. This just is not the case.

For all of the reasons set forth above, HRI respectfully requests that the Presiding Officer find in favor of HRI and against Intervenors on the issue of performance-based licensing.

Respectfully submitted this 11th day of January, 1999.

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Document #: 697419 v.1

EXHIBIT A



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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 26, 1994

MEMORANDUM FOR:	The Chairman	· · · ·
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Ал сайта	Commissioner	de Planque

FROM:

James M. Taylor Executive Director for Operations

SUBJECT:

STAFF EFFORTS TO REDUCE REGULATORY IMPACT ON URANIUM RECOVERY LICENSEES

In a May 12, 1993, meeting among the U.S. Nuclear Regulatory Commission, uranium recovery licensees and representatives of the uranium recovery industry, the Chairman committed to have staff explore ways to reduce the regulatory burden of uranium recovery licensees without compromising protection of health and safety and the environment (see Enclosure). Uranium recovery licensees had presented examples of licensing actions that they considered excessive and which they felt were not beneficial to either the NRC or themselves. As a result of this meeting, staff conducted an evaluation of possible topics for rulemaking and regulatory guidance. The staff also reviewed potential license conditions that would provide licensees with more flexibility in operating their facilities, or reduce the number of amendments required. In addition, staff evaluated proposals made by several licensees, as well as the Wyoming Mining Association, and the American Mining Congress. The staff also received comments from two affected States, New Mexico and Colorado, that were taken into consideration as part of the review.

In response, staff considered five major areas in which the regulatory impact might be reduced. First, staff found that licensees could decrease the number of their amendment requests by using more flexible "criteria-based" license conditions rather than extremely specific conditions, such as conditions that specify particular individuals or organizational structures. Second, staff has developed a performance-based license condition that would incorporate the concepts of NRC's regulation 10 CFR 50.59 into licenses. The performancebased license condition would allow licensees to make changes to their facilities. under certain conditions, without NRC approval. Third, an industry recommendation to eliminate dual regulation of in-situ leach facility well fields may be achievable. To accomplish this, staff would need to find that State oversight is comparable to current NRC requirements. Fourth, staff also has concluded that a similar approach could be used in reviewing cultural artifacts. A fifth area, eliminating annual surety reviews, was recommended by the uranium recovery industry, but cannot be implemented since NRC review is required by regulation. A rulemaking to eliminate this review would not be cost-effective. Many of the facilities are in the final states of reclamation and therefore would not be affected. Also, the resource cost of promulgating such a rule would be passed on to the licensees through fees and would not be recovered in their license lifetime.

The Commissioners

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In addition to the regulatory burden reduction efforts discussed in the enclosure, the staff is continuing to work with the uranium recovery industry to identify any other areas where the regulatory burden can be reduced.

The enclosure, "U.S. Nuclear Regulatory Commission Staff Efforts to Reduce Regulatory Impact on Uranium Recovery Licensees," has been coordinated with the Office of the General Counsel (OGC), and OGC has no legal objection. The Office of the Inspector General chose not to review the paper.

> Original signed by James M. Taylor

James M. Taylor Executive Director for Operations

Enclosure: Staff Efforts to Reduce Regulatory Impact on Uranium Recovery Licensees

CC: SECY OGC OCA OPA

U.S. NUCLEAR REGULATORY COMMISSION STAFF EFFORTS TO REDUCE

REGULATORY IMPACT ON URANIUM RECOVERY LICENSEES

The staff has identified four areas where it believes the regulatory burden on uranium recovery licensees can be reduced without compromising protection of health and safety and the environment. These areas are: 1) using more flexible license conditions that incorporate criteria that a licensee will meet instead of conditions that specify exactly what the licensee is presently doing; 2) implementing a performance-based license condition approach that would allow licensees to make changes to their facilities, under certain conditions, without NRC approval; 3) potentially eliminating dual regulation of *in-situ* leach well fields by relying on State reviews; and 4) potentially relying on reviews by States concerning cultural artifacts.

A fifth area, streamlining surety reviews and revisions, was evaluated, but was found not to be a suitable candidate for reducing the regulatory burden of the uranium recovery licensees. Each of the these areas is discussed below.

1) MORE FLEXIBLE LICENSE CONDITIONS

Over the past year, staff has received several letters from uranium recovery licensees, the American Mining Congress and the Wyoming Mining Association that provide examples of licensing amendments that the licensees consider time consuming and costly with little benefit to either the NRC or the licensee. In its review of the examples, the staff found that many resulted from extremely specific license conditions. For example, there have been conditions that specified licensee facilities, organizations, and in some cases individuals, with the effect that licensees could not change these without submitting a license amendment. A number of these conditions could be changed to more flexible "criteria-based conditions." For example, criteria-based conditions would specify criteria for specific staff positions (such as the radiation safety officer) to meet, rather than specific individuals. Similarly, organizational criteria would be included in the licenses, but specific organizational structures would not be specified by license condition. The staff notes that such criteria-based conditions would be specific to individual licenses, and would not constitute generic changes that NRC could make industry-wide, by rulemaking.

The staff considers such an approach to be consistent with what several licensees already have in their licenses. Of course, some changes could not be made without prior NRC approval. Examples include a change in facility ownership, or a change in control of the license. Overall, however, the staff believes that criteria-based license conditions that would allow licensees to make changes such as those to organizations, without prior NRC approval, are acceptable.

2) PERFORMANCE-BASED LICENSE CONDITIONS

The second area where the staff found regulatory reduction could be achieved was in the preparation of a performance-based license condition. In developing the performance-based license condition, staff ensured that the proposal was consistent with the Commission's regulations and licenses for other facilities (i.e., nuclear power plants, fuel cycle facilities, and the high-level waste repository). The performance-based license condition was modeled on the

provisions of 10 CFR 50.59, which allow 10 CFR Part 50 licensees to make changes to, or conduct tests and experiments at, their facilities without prior NRC approval, unless the change, test, or experiment involves a change in the technical specifications incorporated in the license or an unreviewed safety The performance-based license condition is structured such that auestion. uranium recovery licensees are required to submit applications for all license amendments, unless they can demonstrate that the provisions specified in the performance-based license condition have been satisfied. In addition, the performance-based license condition requires that a summary of all changes made under that condition be provided to NRC in an annual report. Therefore, the performance-based license condition provides the same degree of flexibility contained in the regulations and licenses for other nuclear facilities, and is consistent with established NRC policy. A copy of the performance-based license condition, along with the proposed letter for providing it to uranium recovery licensees, is contained in Attachment 1.

If licensees decide to incorporate the performance-based license condition into their licenses, they would have the burden of ensuring proper implementation of the condition. The staff believes that the summaries required by the condition, coupled with information gained from inspections, would allow staff to determine if a licensee had not properly implemented the condition. If this were the case, the licensee would be in violation of its license, and be subject to possible NRC enforcement action.

Although staff has had several meetings with licensees to explain how the performance based license condition could be implemented, several licensees and the American Mining Congress are still concerned that the condition does not As noted above, staff explained to industry offer sufficient flexibility. representatives that it made the condition consistent with other regulations and existing NRC policy. However, uranium recovery licensees are still concerned that the condition is too rigid, and would like further flexibility. Attachment 2 is a copy of the American Mining Congress's, March 1, 1994, memorandum to its Uranium Environmental Subcommittee and the American Mining Congress/NRC Workshop participants on this subject. The staff has reviewed these comments and believes that the American Mining Congress's proposal would provide more flexibility to the licensees than is the present NRC policy under 10 CFR Staff is therefore unable to support the American Mining Congress's 50.59. suggestions.

A counter-argument concerning the flexibility available through the performance based license condition has been raised by the States of Colorado and New Mexico. These States expressed concern that some of the determinations licensees would make are subjective and should not be left to the licensee. The States recommended that NRC not adopt the performance-based license condition approach. In responding to the States' letters, staff noted that there would be sufficient checks in place, such as the summary requirements of the condition and ongoing inspections by NRC. These checks would allow staff to learn, in a timely fashion, if licensees were not properly implementing the condition.

As proposed, the performance-based license condition does not fully meet the recommendations of the uranium recovery industry, nor does it respond to the States' recommendation that it not be issued. However, staff continues to consider that the condition allows appropriate decisions to be made by licensees without explicit NRC approval, while ensuring adequate protection of public health and safety and the environment.

In a parallel activity, staff is working with two licensees, Power Resources, Inc. and Energy Fuels Nuclear, Inc., to develop model licenses. These licenses are intended to incorporate the performance-based license condition, the criteria-based conditions discussed under Section 1 above, and any necessary conforming changes. One model license addresses an *in-situ* leach facility and the other a conventional uranium mill. These models will help determine how the performance-based license condition, when coupled with license-specific changes, can be implemented most effectively.

3) NRC'S REGULATORY ROLE OVER IN-SITU LEACH FACILITY WELL FIELDS

The third area where staff believes a reduction in the regulatory burden of uranium recovery licensees can be realized, is in NRC's regulatory role regarding in-situ leach well fields. Wyoming Mining Association, Power Resources Inc., and Uranerz, Inc., suggested that staff reconsider its regulatory authority over insitu leach well fields. All three further stated that if NRC concludes its regulatory role over *in-situ* leach well fields cannot be reduced, NRC consider deferring its authority to States. In general, it was argued that radiation safety issues at *in-situ* leach operations are not a concern until the uranium in solution is concentrated in the processing plant above ground. It was noted that the well fields at in-situ leach operations are regulated the bγ U.S. Environmental Protection Agency (EPA) and State agencies in non-Agreement States. The cummentors consider that the proposal would eliminate duplication and redundancy in the regulation of ground water and would result in substantial resource savings to both NRC and the industry.

Counsel for the American Mining Congress, by letters dated February 1, 1994, and March 10, 1994, also urged staff, on jurisdictional grounds, to consider deferring to Environmental Protection Agency (EPA) or State regulation of well fields under these entities' underground injection control programs established within the last decade. In non-Agreement States, NRC has a statutory responsibility regarding *in-situ* well fields. This issue had been addressed by the Executive Legal Director (ELD) in an April 28, 1980, legal opinion to former Chairman Ahearne. This opinion concluded that NRC has the legal responsibility (and authority) to impose ground water protection conditions upon its *in-situ* leach licensees. Based on its review of this ELD opinion, the Office of General Council (OGC) concluded that the recent industry arguments were insufficient to alter the conclusions reached in the ELD opinion. (A copy of NRC's response to the American Mining Congress letters on this subject is presented in Attachment χ 3.)

However, OGC considers it acceptable for NRC to rely on a State's groundwater regulatory program to help meet NRC's requirements for *in-situ* leach well fields. Therefore, as a matter of regulatory policy, staff intends to rely on a State's groundwater protection program if that program is found to be comparable to NRC's. This approach would allow staff to ensure that necessary oversight is being achieved while eliminating dual regulation.

The staff is in the process of meeting with the States that have NRC-licensed *in-situ* leach facilities, to ascertain whether the States would be willing to provide such oversight of the well fields, and whether the States' programs would meet NRC's regulatory requirements. The staff has also begun work on a Manual Chapter that will identify the types and frequencies of inspections that should be performed for in-situ facilities. This Manual Chapter will serve as the basis

be performed for in-situ facilities. This Manual Chapter will serve as the basis on which staff will evaluate State programs.

4) ARCHEOLOGICAL SURVEYS

The National Historic Preservation Act of 1966 and the National Environmental Policy Act of 1969 require NRC to take into account in its licensing process the effects of a licensee's proposed undertaking on cultural resources. In addition, these acts require NRC to make decisions regarding the adequacy of the licensee's cultural resource program. Therefore, staff cannot eliminate the condition requiring licensees to obtain NRC approval before site work begins in areas where artifacts have been found. However, NRC need not do a complete review of every undertaking that affects cultural resources if staff can use reviews previously conducted by State historic preservation officers. This reliance on State evaluations would minimize staff resource expenditures and eliminate dual regulatory review.

5) STREAMLINING SURETY REVIEWS AND REVISIONS

The uranium recovery industry suggested that NRC staff consider streamlining its surety reviews. Criterion 9 of 10 CFR Part 40, Appendix A, requires that sureties

"... will be reviewed annually by the Commission to assure that sufficient funds would be available to carry out the decontamination and decommissioning ..."

The staff does not believe it would be prudent to revise the regulation. Removing this requirement would remove the mechanism that staff has in place for ensuring that adequate funds will be available if NRC should need to draw on the surety. In addition, the resource cost of promulgating a proposed rule would not be recovered in the license lifetime of most uranium recovery licenses. Therefore, staff believes that annual reviews of licensee sureties should not be eliminated.

There are, however, two ways in which the staff could implement this regulation, that would reduce its review effort. One would be to include a condition in licenses that requires licensees to have surety agreements and submit proposed updates to NRC for review, at least three months before the expiration date. These updates would reflect inflation or proposed reductions because of completed construction. Although, contrary to current practice, no dollar value would be specified in the license, staff would still need to review the update. This review would ensure the amount specified in the surety instrument itself would be sufficient to complete any decommissioning, restoration, and reclamation work not yet done. However, no amendment would need to be issued.

The second approach would also eliminate dollar values from licenses, but still require licensees to update their sureties annually. If the update only reflected inflation, it need not be submitted to NRC. Rather, the staff would incorporate it into existing inspection procedures, and review it as part of its annual inspection. Updates where licensees were requesting a reduction in the surety amount would need to be formally submitted to the staff for review. In both cases, licensees would have to demonstrate that the amount remaining in the surety would be sufficient to complete any reclamation work not done. As above, the staff would review all updates, but amendments would not be needed. The staff does not believe implementation of either option above would reduce the regulatory burden of licensees. Under both circumstances, the only activity that is eliminated is the need to issue a yearly amendment. In the context of the overall effort, the work associated with the issuance of the amendment is minimal. Under 10 CFR Part 40, Appendix A, Criterion 9, licensees would still be required to submit annual updates, and the staff would be required to review them. Therefore, the staff sees little, if any, reduction in the regulatory burden, if either of the two approaches were adopted. In addition, the work expended in the review would still be fee-chargeable. Therefore, the savings to licensees in terms of fees would be minimal.

Further, the staff does not believe it would be prudent to reduce its review in this area. The reason for this is the increased concern, within NRC, over the financial viability of several significant licensees in other program areas, and the recent need to begin to call the surety for the American Nuclear Corporation Gas Hills Mill.

STAFF CONCLUSIONS:

The staff is acting to make significant flexibility available to uranium recovery licensees if the licensees choose to file applications for amendments that make their licenses more criteria-based. These changes are specific to individual licenses, and do not constitute generic changes that NRC could make industrywide. In addition, the staff has developed a generic performance-bised license condition that can be added to existing licenses, should licensees file an application for an amendment to include this condition. The staff is pursuing the potential of eliminating dual regulation of *in-situ* leach well fields and cultural resources. These will be achieved in States where the staff finds that State oversight of the facilities is at least equivalent to that of the NRC.

Staff considered streamlining decommissioning surety reviews, but will not pursue changes at this time. Staff made this decision because no changes were identified that would result in a significant reduction in licensees' regulatory burden without compromising protection of health and safety and the environment.

No areas were identified where regulatory guidance could be developed that would reduce licensees' regulatory burden.

Attachments:

- 1. Proposed Ltr to UR Licensees with performance based license condition
- AMC Memo to AMC/NRC Workshop Participants, dtd. 3/1/94
- 3. NRC's response to the AMC letters dtd. 6/2/94

Enclosure 2 Attachment A.1 (The copy of this attachment is not being reproduced since it is included in Enclosure 1)

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Enclosure 2, Attachment A.2

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MEMORANDUM

March 1, 1994

AMERICAN MINING CONGRESS

1920 N Street NW, Suite 300 Washington, DC 20036-1662 202/861-2800 Fax: 202/861-7535

John A. Knebel President TO: Uranium Environmental Subcommittee & Consultants AMC/NRC Workshop Participants

FROM: James E. Gilchrist, Vice President Anthony J. Thompson, Esq.

RE: NRC's Proposed Generic Performance Based License Condition

URFO/TOT Process: The Nuclear Regulatory Commission's (NRC) 1. decision to close the Uranium Recovery Field Office (URFO) has led to the development of a dialogue between licensees and NRC's transition oversight team (TOT) to discuss transition to NRC's new regulatory and enforcement scheme. As part of this process, NRC has indicated willingness to consider ways to streamline its regulatory oversight of uranium production facilities. One of the specific issues arising in this context is the potential for cutting down on the number of license amendments currently required for changes in licensee activities. As a result of ongoing discussions regarding this topic, the American Mining Congress (AMC) and licensees have provided NRC with some suggested examples of "licensee amendments" which it is suggested should not require NRC approval prior to licensee implementation. NRC in turn produced a proposed generic performance based license condition (PBLC) based on the provisions of 10 C.F.R. Part 50.59. Part 50.59 essentially provides that a licensee may make changes in the facility or procedures described in the Safety Analysis Report (SER) and conduct tests or experiments not addressed in the SER without prior approval unless the proposed change, test or experiment would involve a change in "technical specifications" in the license or an "unreviewed safety question."

2. NRC'S PROPOSED GENERIC PERFORMANCE BASED LICENSE CONDITION:

NRC's proposed generic PBLC (Attachment 1) essentially provides in Subparagraph (a) that a licensee may without prior NRC approval, make changes in a facility, processes or procedures presented in the license application and conduct tests or experiments not presented in the application if the licensee satisfies the conditions set forth in subpart (b) of the proposed Subparagraph (b) essentially provides that: (1) the PBLC. change will not conflict with other license requirements or subparagraphs (2 and 3) as follows; (2) there is "no degradation" in essential safety and environmental commitments; (3) there is "no degradation" in safety or environmental protection provided by the approved reclamation plan or its cost bases; (4) there is "no impact" on the licensee's ability to meet all applicable regulations; (5) the change will fall within alternatives analyzed in the EIS; and, (6) there is "no reduction" in the margin of safety or environmental protection, including design

bases, operating limits and the results of analyses from that presented in the license application.

Subparagraph (c) of the proposed PBLC requires that a safety and environmental review panel (SERP) made up of at least three individuals (one from management, one from operations/ construction and one from radiation safety) make all determinations concerning subparagraph (b) changes. Subparagraph (d) requires the licensee to maintain written records of any changes including the basis for the SERP's decision to make the changes and a determination that it would be in accordance with subparagraph (b). The licensee will furnish NRC this information in an annual report.

3. <u>AMC COMMENTS</u>: AMC has reviewed the proposed PBLC and has the following comments:

- (a) The concept is good and appears to address the issue raised by licensees regarding their ability to modify certain license requirements without prior NRC approval. However, a close reading of the proposed procedure raises serious questions about the amount of regulatory oversight effort that is likely to be saved by the proposal.
- (b) First, licensees must focus on the fact that if the proposed "change" was not addressed in the license application and accompanying EIS, then an NRC approved license amendment is required.
- (c) Second, the language in subparagraph (b) of the proposed PBLC is too restrictive <u>[i.e.</u>, (2) and (3) "no degradation in;" (4) "no impact (6) "no reduction."] NRC added the term "degradation" to subparagraphs 2 and 3 in recognition of the fact that the language in its prior draft (i.e., "no change to,,) would rule out situations in which the licensee's changes would improve upon health and safety or environmental commitments, etc. The same comment is applicable to proposed subparagraph (4) and (6) where, as currently drafted, a licensee's changes that on balance would improve its ability meet all applicable standards or that would increase the overall margin for safety would theoretically be ruled out.
- (d) Therefore, AMC believes that subparagraphs (2), (3), (4) and (6) all require the insertion of the word "significant" (or some other similar word) after the word no. Thus, subparagraph (2) would read there is "no significant degradation in," and subparagraph (4) would read there is "no significant impact on, and subparagraph (6) would read there is "no significant reduction in the margin for safety."

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(e) AMC is also concerned that the proposed SERP would not be feasible at all sites since there may not be three different individuals representing management, operations/construction and radiation safety. In response, NRC has suggested that perhaps the SERP could be tailored to fit the circumstances of the individual licensee. This would require consultation with NRC and NRC approval.

PROGRAM TO "CLEANUP" LANGUAGE: After a discussion of the 4. types of changes that licensees can make without prior NRC approval pursuant to the proposed PBLC and those which do not qualify, AMC and NRC Agreed that one way to alleviate the need for NRC approval in many obvious cases would be to update the language in existing license provisions to provide licensees more latitude. For example, a license provision could be restructured to allow a licensee to change the radiation safety officer (RSO) without prior NRC approval and without the necessity of addressing the criteria of the proposed PBLC. NRC has suggested that a program be instituted to "clean up" the larguage in existing older licenses to allow some types of charges without NRC approval in accordance with more modern license provisions NRC has developed in recent years. NRC has furnished an example of modern license language to facilitate such a program. (See Attachment 2). A joint licensee/NRC effort to identify the types of license provisions which fit into this category seems appropriate.

LICENSEE NOTIFICATION OF A PROPOSED CHANGE WITH A "TIME FUSE" 5. **BEFORE IMPLEMENTATION:** During the discussions with NRC, a question was raised regarding licensee exposure to enforcement action if a "licensee amendment" is made without prior NRC approval and NRC later decides it should have been pre-approved. NRC indicated that under such circumstances a licensee could be subject to enforcement action. AMC suggested that licensees can provide themselves with some protection by notifying NRC in writing (preferably certified mail, return receipt requested) and orally of a proposed modification which the licensee plans to implement after "x" number of days unless NRC notifies the licensee of an objection. AMC believes that this "time fuse" type of notification will provide a licensee with some cover in the event that NRC makes an after-the-fact determination that prior NRC approval should have been obtained. NRC staff also noted that DOE Title I personnel categorize changes to Remedial Action Inspection Plans according to whether a change clearly has health and safety impacts requiring NRC concurrence (Category 1), does not have such implications but still requires NRC review (Category II) or is insignificant and NRC need not review (Category III).

6. EXAMPLES OF AMENDMENTS:

A. The following are "licensee amendments" that AMC has suggested should not require prior approval. (However, please note that in some cases NRC has indicated these would require prior approval.) The examples are taken from materials provided by licensees to NRC and AMC.

(1) Changes to the health physics staff including the RSO and the Radiation Safety Technician (RST).

Example: The licensee shall designate a RSO who will be responsible for establishing maintenance of a facility radiation protection program including personnel and environmental monitoring programs. The RSO shall possess minimum qualifications as specified in Regulatory Guide 8.31.

<u>Discussion</u>: NRC agrees that a change of this type should not require prior NRC approval. Presumably a specific license provision along these lines would solve future approval problems and avoid the analysis and SERP process required by the PBLC.

(2) Company or corporate organizational changes which do not affect a licensee's license commitments or surety.

<u>Example</u>: Any changes to the licensee's corporate organizational structure and staff will be documented and available for NRC inspection.

<u>Discussion</u>: NRC agrees that a change within a company corporate structure should not require prior NRC approval, however, any change in <u>ownership</u> requires notification and a request for an amendment.

(3) Process changes which do not have a significant effect on the environment or occupational health.

Example: Prior to implementing any significant changes in the process circuit, a licensee shall evaluate the action to determine if such action may result in significant adverse environmental or public safety impacts. The licensee may not institute such changes if the evaluation indicates a significant adverse impact.

Example: All yellow cake dryer operations shall comply with effluent standards within 10 C.F.R. Part 20 and shall: (a) be immediately suspended if any of the emission control equipment for the yellow cake dryer or packaging area is not operating within design performance specifications; (b) be sure that the recommended operating procedures are

documented and that all appropriate gauges, audible alarms and sensors are maintained and operating to design performance levels during yellow cake drying or packaging operations.

<u>Discussion</u>: NRC indicated that a change in the process circuit is an example of the type of proposed change that should be addressed through the PBLC. As long as the criteria of the PBLC are met, the licensee would not have to request NRC approval. NRC did, however, note that changes in the chemicals used or the chemical process or changes in production that would lead to an exceedance of the annual production limit would require pre-approval by amendment.

A question was asked about using new equipment which may control yellow cake emissions more efficiently. NRC indicated that would be a close question. However, it would seem that if yellow cake emissions are going to be controlled more efficiently by insertion of a different type of machinery in the same basic milling operation, no amendment should be required. NRC indicated that any new procers or change in design criteria requires an amendment, but, for example, if an operator has an IX unit and wants to add another IX unit or put new parts in the existing IX, it would not need an amendment as it is essentially the same kind of system. This assumes, of course, that any increase in production would still be within the annual production limit.

(4) Byproduct disposal of 11(e)(2) material without individualized license amendments.

Example: The licensee is authorized to dispose of 11(e)(2) byproduct material from this facility at any site licensed by the NRC or an agreement state that is authorized to receive and dispose of such byproduct material. The licensee shall maintain a permanent record of all transfers made to facilities licensed to accept byproduct material.

<u>Discussion</u>: NRC indicated that disposal of in-situ leach (ISL) byproduct material to any licensed facility should not be a problem and that perhaps modification of individual license language to that effect would be an appropriate way to address the issue. A question was raised as to why (ISL) waste material should be considered differently than byproduct material created by a heap leaching operation. NRC is apparently concerned about the potentially broad scope of the term 11(e)(2) byproduct material and the potential that a facility would become a commercial disposal facility--a condition that probably would not have been addressed in its application and EIS. AMC noted that if it is ii(e)(2) byproduct material, there should be no

conceptual or legal problems with any licensed facility taking the material. Disposal of ISL byproduct material at another licensee's uranium milling facility normally involves the payment of a fee by the ISL operator and "toll milling" in the past was a common practice so there has long been a commercial component to 11(e)(2) disposal.

- One ISL licensee has suggested that as long as a facility has a contract for byproduct disposal in place within 180 days of termination of any prior contract that it should be sufficient to satisfy NRC's disposal contract requirement. NRC indicated concern about a facility going for 180 days without a signed disposal contract. NRC indicated that a facility should always have a contract for disposal in place, but that the facility can change the contract or terms of the contract or renew a contract without the necessity of getting an amendment.
- (5) Retention pond construction.

Example: Prior to constructing any retention pond, safety design analysis will be performed to meet the requirements of Regulatory Guide 3.11 and Staff Position Paper No. WM-8181. All safety design analyses shall be maintained on site for NRC inspection. The retention pond will be inspected at a frequency commensurate with the type of utilization of the structure. All inspections will be maintained onsite for NRC review.

<u>Discussion</u>: NRC raised questions about whether or not this example was intended to address a <u>new</u> retention pond that had not been proposed in the approved application or whether it was intended to address a situation where a retention pond that had already been included in the approved application was to be constructed. NRC indicated that if the retention pond was contemplated in the license application and evaluated in the EIS, no amendment would be required. If it was not included in the application and addressed by the EIS an amendment would be required. Similarly, relocation of a retention pond would require an amendment unless it was relocated to an area where there had previously been a pond considered in the application and EIS.

(6) Environmental and radiological/bioassay monitoring.

Example: Licensee shall implement and maintain an effluent and environmental monitoring program to assure compliance with 10 C.F.R. Part 20. Licensee's program shall be commensurate with the process activity and operational mode. Results of effluent and environmental monitoring shall be reported to NRC in accordance with 10 C.F.R. Part 40.65.

Example: The licensee shall implement and maintain a radiological/bioassay program consistent with the facility's processes and operational mode. The monitoring program will be consistent with Regulatory Guide 8.31. The licensee shall implement a bioassay program consistent with Regulatory Guide 8.22. Results of the radiological/bioassay program shall be reported to the NRC and the annual ALARA report conducted by the RSO.

<u>Discussion</u>: With respect to environmental monitoring, NRC indicated that adding monitoring sites such as, for example, wells would not be an action requiring preapproval, but changing the location of such wells could be, particularly if it involves a point of compliance (POC) well.

A question was raised about the distinction between an environmental monitoring well and an operational ISL well or an operational corrective action well. AMC pointed out that operators need flexibility to respond to site specific circumstances in a dynamic system, such as an ISL well field in production or restoration, or in a corrective action program associated with a conventional uranium mill tailings facility. This was noted as an issue that will require additional discussion between NRC personnel and licensees.

With respect to bioassay decisions, NRC indicated that modifying a bioassay program such as by reducing the number of people subject to the program as a result of a reduction in personnel would not require a license amendment.

(7) <u>Decommissioning Plans</u>.

Example: Prior to decommissioning activities, the licensee shall prepare a detailed decommissioning plan outlining the necessary requirements for maintaining occupational exposures, monitoring requirements, safety considerations, and documentation. The plan will provide and be consistent with "Guidelines For Decontamination of Facilities and Equipment Prior to Release For Unrestricted Use or Termination of Licenses for Byproduct or Source Material" dated September 1984.

<u>Discussion</u>: NRC indicated that changes in decommissioning plans need to be submitted for approval as an amendment. NRC staff indicated that this is a good example of a situation in which an amendment is necessary.

The question was raised again regarding the distinction between the circumstances where a detailed plan has been submitted and approved and the circumstances after approval where licenses need to make "operating" decisions or where NRC has not completed review of the decommissioning plan or

elements thereof and the licensee needs to make operating decisions. AMC indicated that it is not readily apparent why certain changes to a decommissioning plan could not be the proper subject for a PBLC (such as changing the contractor who is scheduled to dismantle portions of an ISL or milling facility).

B. ACTIVITIES WHICH MAY REQUIRE AMENDMENTS.

(1) Reclamation Plan Modifications

<u>Example</u>: The licensee may make modifications to the approved reclamation plan provided:

(a) the licensee performs an analysis to determine that there will be no significant impact resulting from the modification in the environment of public safety;

(b) modification provides that at a minimum, the equivalent protection serves the same function as the original approval.

<u>Discussion</u>: AMC noted that this type of potential modification again raises questions regarding operational decisions that the licensee may need to make in terms of ongoing reclamation activities. The example above seems to be consistent with the language contained in the PBLC. If a licensee proposed to change some portion of the reclamation plan as long as it doesn't reduce protection or change milestone dates or other major components of the reclamation plan, it would seem to be appropriate to use the PBLC. This may be an example of the "gray area" kind of change where AMC suggests licensees should use a "time fuse,, notification to provide some cover in case NRC decides that the proposed action should have been pre-approved.

(2) <u>Corrective Action Plan</u>.

<u>Example</u>: Licensee shall implement and maintain facilities approved groundwater corrective plan. Modification may be instituted based on site specific conditions provided it affords the same protection and serves the same function as the original approval.

<u>Discussion</u>: Again, changes in a corrective action plan raise issues referenced in A(6) above regarding the distinction between environmental monitoring and operational management of a dynamic system based on site specific considerations. C. <u>NRC Amendments</u>. All parties agreed that the following were good examples of potential changes that would require NRC approval of an amendment.

- (1) Modifications to approve financial surety, whether it be type of surety instrument or the amount;
- (2) Alternate concentration levels (ACLS) need to be approved solely by NRC to assure it has officially recognized that the facilities complied with the requirements for obtaining an ACL;
- (3) NRC needs to maintain its "Section 106" review and approval of National Historic Preservation Act requirements to assure the licensee has complied with the requirements of the Act;
- (4) Modifications of the licensees reclamation milestone dates.

Enclosure 2, Attachment A.3



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

JUN 0 2 1994

Anthony J. Thompson, Esq. Shaw, Pittman, Potts & Trowbridge 2300 N Street, N.W. Washington, D.C. 20037

Dear Mr. Thompson:

SUBJECT: SUGGESTED RECONSIDERATION OF REGULATORY AUTHORITY OVER IN-SITU LEACH FACILITY WELLFIELDS

I am responding to your letter to me of March 10, 1994. In that letter you suggested that the Nuclear Regulatory Commission reconsider its regulatory authority over in-situ leach (IS) facility wellfields. The basis for your position was that contrary to the April 28, 1980, memorandum from the Executive Legal Director (ELD) to the then Chairman Ahearn, you believed NRC lacks jurisdiction over below-ground activities related to licensed IS operations. You also argued that NRC regulation of IS wellfields is unnecessary, duplicative and potentially inconsistent with standards for groundwater protection established by the U.S. Environmental Protection Agency (EPA). Your letter further suggested that if NRC concluded its regulatory rule over wellfields could not be reduced, that the staff consider deferring its authority to States.

Based on its review of your letter, the staff concluded that the legal arguments you presented do not alter the conclusions reached in the 1980 ELD memorandum. Your letter states that NRC is in error in regulating IS wellfields for four reasons. In consultation with our legal counsel, we conclude that the four premises you offered either do not properly convey the concepts promulgated in the regulations with respect to conventional uranium mining and milling, or serve unrelated regulatory purposes. Your four arguments can be briefly addressed as follows:

1. The underground aspect is mining, which NRC does not regulate.

The underground aspect is not soley mining. Running lixiviant through an underground ore body is also processing. The Atomic Energy Act of 1954, as amended, gives the NRC authority over source material after its removal from its place of deposit in nature. The dissolution of uranium in the ore body is a removal of uranium from its place of deposit in nature and is also a form of processing equivalent to the acid or base leach in a conventional mill.

2. The underground ore body is unrefined and unprocessed ore and exempted from licensing.

After leaching with lixiviant the underground ore body is processed ore.

Mr. Anthony J. Thompson

3. The ground water involved contains less than 0.05 weight percent of uranium and is exempt from NRC regulation.

The .05 weight percent unimportant quantity rule in 10 CFR 40.13(a) does not apply to licensed persons. Disposal of waste water by licensees is subject to 10 CFR Part 20, specific license condition, and/or National Pollution Discharge Elimination System (NPDES) permit limits.

4. The underground aspect does not involve byproduct material.

Only the depleted underground ore body is excluded from the definition of byproduct material. All other waste is byproduct material and must be disposed of either as an authorized effluent release, or in conventional mill tailings ponds (or the Envirocare liceused facility) pursuant to criterion 2 of 10 CFR Part 40, Appendix A.

Therefore, the staff does not believe there is any basis to alter the staff's understanding of its regulatory jurisdiction over IS wellfields.

With respect to your second suggestion, if the staff finds that a State is implementing a program that is comparable to one the NRC would undertake, the staff could rely on the State's program to also meet NRC's regulatory requirements. This approach would allow the staff to ensure that the necessary oversight was being achieved but still eliminate duplicate regulation. The staff plans to investigate other regulatory programs, administered by the EPA and States, to determine whether these programs accomplish the same objectives as the NRC IS wellfield regulation program, and if so, how they can be used by the staff to fulfill its regulatory obligation. As an initial step, on April 19, 1994, the staff discussed with Wyoming officials that State's program for IS wellfield regulation.

I trust this responds to your concern. If you have further questions, please contact Mike Fliegel at (301) 415-6629.

Sincerely,

MR Ky

Malcolm R. Knapp, Director Division of Waste Management Office of Nuclear Material Safety and Safeguards

cc: States (see attached list) In-Situ Licensees (see attached list) Wyoming Mining Association American Mining Congress

STATES

Nebraska Department of Environmental Quality, Ground Water Section Suite 400, The Atrium, 1200 N Street P.O. Box 98922 Lincoln, NE 68509-8922

Department of Environmental Quality Attn: Dennis Hemmer Herschler Building 122 West 25th Street Cheyenne, WY 82002

New Mexico EID Attn: Benito Garcia 1190 St. Francis Drive Santa Fe, NM 87503

State of Texas Attn: Susan S. Ferguson, Director Hazardous Waste Division Texas Natural Resource Conservation Commission P.O. Box 13087 Austin, TX 78711-3807

Robert Quillin Radiation Control Division Department of Health 4300 Cherry Creek Drive, South Denver, CO 80222-1530

Gary Robertson Division of Radiation Protection Department of Health, LE-13 Airdustrial Center Building 5 P.O. Box 47827 Olympia, WA 98504-7827

IN-SITU LICENSEES AND APPLICANTS

Rio Algom Mining Company Attn: Bill Ferdinand, Manager Radiation Safety, Licensing & Regulatory Affairs 6305 Walerford Blvd., Suite 325 Oklahoma City, OK 73118

<u>.</u> . .

Hydro Resources, Inc. Attn: Mark Pelizza Uranium Resources, Inc. 12750 Merit Drive, Suite 1210, LB 12 Dallas, TX 75251

Ferret Exploration Company of nebraska, Inc. Attn: Steve Collings 216 Sixteenth St. Mall, Suite 810 Denver, CO 80202

Power Resources, Inc. Attn: Steve Morzen'i, Vice President 1560 Broadway, Suite 1470 Denver, CO 80202

COGEMA Mining, Inc. Attn: Chuck Foldenauer P.O. Box 730 Mills, WY 82644

Pathfinder Minds Corporation North Butte ISL Operations Attn: Donna L. Wichers 935 Pendell Boulevard Mills, WY 82644

Energy Fuels Nuclear, Inc. Attn: William J. Almos One Tabor Center Suite 2500 1200 17th Street Denver, CO 80202

EXHIBIT B



UNITED STATES

WASHINGTON, D.C. 20555-0001

IFEB^{*} 1 5 1994

Mr. James E. Gilchrist Vice President Environmental Affairs American Mining Congress 1920 N Street N. W., Suite 300 Washington, DC 20036

Dear Mr. Gilchrist:

On January 24, 1994, the U.S. Nuclear Regulatory Commission staff met with you, your associate K. Sweeney, and attorney T. Thompson of Perkins Coie. Mr. R. Posner of COGEMA, Inc., also attended. The purpose of the meeting was two fold:

- to discuss the American Mining Congress's (AMC) suggestions regarding the wording of the performance-based condition and examples of the implementation of this condition, as provided by Rio Algom; and,
- 2. to discuss AMC's proposed agenda and possible dates for the upcoming meeting between the NRC and uranium recovery licensees. The purpose of this meeting is to provide an opportunity for information exchange in order to smooth the transition of licensing actions from NRC's Uranium Recovery Field Office to headquarters.

In accordance with agency procedures, the NRC staff has prepared a meeting summary, which is provided as Enclosure 1. As requested by AMC at the meeting, a copy of a recent uranium recovery license is provided as Enclosure 2. If you have any comments or questions concerning the summary, please contact Sandra Wastler of my staff at (301) 504-2582.

Sincerely,

J. Holand

Joseph J. Holonich, Acting Chief Uranium Recovery Branch Division of Low-Level Waste Management and Decommissioning Office of Nuclear Material Safety and Safeguards

Enclosures: As stated

cc: T. Thompson, Perkins Coie √ R. Posner, COGEMA

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ENCLOSURE 1

JANUARY 24, 1994 MEETING SUMMARY

ATTENDEES:

NRC	AMC	COGEMA	<u>Perkins Coie</u>
J. Greeves M. Bell J. Holonich M. Fliegel	J. Gilchrist K. Sweeney	R. Posner	T. Thompson

S. Wastler

PURPOSE:

The purpose of the meeting was two fold:

- 1. to discuss the American Mining Congress's (AMC) suggestions regarding the wording of the performance-based license condition and examples of the implementation of this condition, as provided by Rio Algom; and,
- 2. to discuss AMC's proposed agenda and possible dates for the upcoming meeting between the Nuclear Regulatory Commission and uranium recovery licensee's. The purpose of this meeting is to provide an opportunity for information exchange in order to smooth the transition of licensing actions from URFO to headquarters.

<u>COMMENTS:</u> Each of the items listed in the purpose above was discussed individually at the meeting. The major points of the discussions for each item are presented below:

Performance-based License Condition

AMC indicated that it had not completed a full review of the performance-based license condition, a copy of which is provided as Attachment 1, but its basic comment was that the condition needed to have adequate flexibility in sections (b)(2) and (3) that the wording "...no degradation in..." does not provide. This wording was viewed as too strict by AMC because it did not allow licensees to make judgements on the impact of the change to their facilities. The staff suggested that the condition be reworded so that these sections read "...no significant degradation...."

A second concern raised regarded the Safety and Environmental Review Panel (SERP) contained in provision (3) of the condition. Specifically, AMC indicated that considering the fact that many mills were in the final stages of reclamation, some companies may not be able to come up with three members for the SERP because one person may cover several positions. AMC also suggested that the licensees should be able to send proposed changes, approved by the SERP as not requiring an amendment, to the NRC, and if NRC doesn't respond negatively to the proposed change in a set number of days the licensee can consider this tacit agreement by the NRC.

The NRC staff stated the rationale behind the number for the SERP was a concern that one person could make these decisions; which was unacceptable: The NRC wanted the opportunity for broader review. In companies where a lean staff could not accommodate a SERP, then it may not be prudent to implement a performance-based condition; and maybe these companies should submit their proposed changes for NRC review. Another possibility would be to let each licensee justify their SERP as necessary, but still have a minimum number of members.

As a side issue, AMC questioned the status of the revised policy statement on open

meetings. The concern is that if the policy states that drop-in meetings are not allowed, a question is raised on the appropriateness of telephone calls. This policy could impact the informal nature of the review process under discussion. The NRC staff indicated that it would have to check on the current status of this policy. 4

Rio Algom Criteria Based License Conditions

The document, provided as Attachment 2, contains examples of conditions and situations that will eventually be provided to licensee's as guidance on the types of changes to a licensee's operation that can be implemented through the performance-based condition. There were three categories of amendments identified; License Amendments, Conditional Amendments, and NRC Amendments. Each of the examples were discussed individually and the major points of the discussion follows:

- 1. <u>License Amendments</u> Examples of changes identified by Rio Algom that can be accomplished through a performance-based condition and do not need to go to the NRC for review and approval prior to implementation.
 - A. Changing the Radiation Safety Officer (RSO) and Radiation Safety Technician (RST) was considered a good example of where the regulatory burden could be reduced by specifying the qualifications of the RSO and RST rather than named individuals. NRC indicated that this type of condition for the RSO and RST already exists in some of the newer/ licenses.
 - B. Changing the corporate organization, where there is no affect on the licensee's surety or its arrangement, was considered another good example of the type of change that could be made with a performance-based condition that would reduce a licensee's regulatory burden. NRC indicated that this type of condition already exists in some of the newer licenses and could be combined with 1A into one condition. NRC noted, however, that the condition is not applicable to a "change of ownership," which requires an NRC license amendment.

C. Changing facility processes that do not have a significant affect upon the environment or occupational health was another type of change that could be accomplished with the performance-based condition. The following two examples were discussed:

<u>Process Modification Example:</u> AMC and NRC considered the implementation of significant changes to the process circuit that are determined not to have an adverse environmental or public safety impact, to be a good example COGEMA, however, indicated that there have been situations at some of its sites where this type of change did not work. In more than one case, COGEMA tried to modify its process based on a determination that the change had no impact on the environment or occupational health (Part 20 requirements), but NRC disagreed. COGEMA was asked to provide the NRC with specific information on these cases for NRC review.

COGEMA raised the additional question of what happens if a company goes forward with a change after making a determination that the change would not impact the environment or occupational health, then upon reporting the change in the annual report the NRC disagrees with the company's analysis. If this is the case, COGEMA wanted to know if this places the company in violation of its license and possibly civil penalties. Thê NRC indicated that the company would be in violation of its license. Although the NRC felt this potential could not be entirely eliminated from happening, it a could be minimized.

AMC indicated that this may be an example of a situation where a licensee would benefit by sending proposed changes, approved by the SERP as not requiring an amendment, to the NRC, and if NRC did not respond negatively to the proposed change in a set number of days the licensee can consider this tacit agreement by the NRC. NRC indicated that this approach would not be a part of the performance-based condition, but something that AMC could propose for its members. NRC suggested that this approach is similar to that used by DOE for changes to the Remedial Action Inspection Plans in the UMTRCA Title I program. DOE provides the NRC with a Project Interface Document that describes the proposed change and categorizes it as Category I, II, or III. Category I is a change that clearly has health and safety implications and requires NRC concurrence. Category II is a change that has been determined by DOE not to have health and safety implications, but the change is significant enough that NRC should review the change. Category III is a change that is clearly insignificant with regard to health and safety impacts and is provided for information purposes, not NRC review.

<u>Yellowcake Circuit Example:</u> AMC and NRC both indicated that the example provided by Rio Algom was unclear, but appeared to be proposing a condition that would allow a change to the yellowcake process circuits as long as the 10 CFR Part 20 effluent standards were met; the emission control equipment for the yellowcake drying or packaging are operating within design specifications; operating procedures are documented; and all gauges, alarms, or sensors are maintained and operated to design levels. NRC indicated that additional examples are needed because this example is only acceptable if the proposed change is within the design specifications of the license application. Where the specification in the license application are exceeded, a license amendment is required. If a different type of chemical process than originally licensed is proposed, a license amendment would also be required.

D. Changing of the byproduct disposal condition to allow disposal on a criteria condition/site-specific basis was an example considered by AMC and the NRC to need additional work. The example was aimed at in situ facilities and would allow them to ship their wastes to any facility licensed to receive and dispose of it without NRC approval. AMC felt the example provided the licensee more flexibility than the current type of condition which required the licensee to have a contract in place with a specific NRC disposal site. AMC suggested that the waste disposal issue should be covered in the surety. The NR expressed the need for having a contract im place at all times, which the Rio Algom example did not provide. NRC indicated that the following example, proposed by Power Resources Inc. in its letter of October 25, 1993 without the 180 day grace period was an acceptable form of that type of license condition:

"The licensee is authorized to dispose of byproduct material at a site licensed by the NRC to receive byproduct material. The licensee shall identify the disposal facility to the NRC and maintain a copy of the agreement onsite for inspection by the NRC. Should the agreement be terminated for any reason, the NRC shall be notified within 7 working days and a new agreement put in place within 180 days from the date of termination or the licensee will be prohibited from further lixiviant injection. The licensee shall identify the new disposal facility to the NRC in writing and maintain a copy of the agreement onsite for NRC inspectors."

Ε.

Changing retention pond construction to a criteria based condition as an

example of way to reduce the licensee's regulatory burden, as proposed by Rio Algom, was considered unclear by both AMC and NRC. All parties actually felt that the example provided was a change that would require a license amendment submitted to the NRC for review and approval.

F.

Changing environmental monitoring and radiological/bioassay monitoring to a criteria-based condition as an example of a means to reduce the licensee's regulatory burden was proposed by Rio Algom. The following specific examples were discussed:

<u>Environmental Monitoring Example:</u> AMC and NRC both agreed that Rio Algom's example, which requires the licensee to implement and maintain an effluent and environmental monitoring program to assure compliance with 10 CFR Part 20, needed additional discussion with input from staff experienced in well field operation. Specifically, the discussion of wells raised the larger issue of a licensee's need for flexibility in managing the on-site wells due to changes in a wellfield or overall production operations. As a result of this discussion, it was agreed that the applicability of a performance-based condition to wellfield wells and pumpback wells needs to be assessed, in addition to the monitoring wells. Everyone did agree however, that the addition of environmental monitoring stations and wells could be accomplished without a license amendment.

<u>Occupational Radiological/Bioassay Monitoring Example:</u> AMC and NRC agreed that the occupational radiological/bioassay monitoring criteria based condition example was acceptable as written.

- G. Changing the Facility Decommissioning Plan to a criteria based condition, as proposed by Rio Algom, is not an example where the performance based condition would be applicable. A license amendment would be required to make changes to the Decommissioning Plan. AMC and COGEMA, however, indicated that there needs to be some flexibility to allow a licensee to proceed in a timely manner? if the NRC has not completed its Decommissioning Plan review.
- 2. <u>Conditional Amendments</u> Examples from Rio Algom of changes that sometimes could be accomplished by the performance-based condition, and other times would require a license amendment (the "grey area" type of changes). AMC once again suggested that for these types of changes its members should notify the NRC by letter and if NRC doesn't respond negatively to the proposed change in a set number of days the licensee can consider this tacit agreement by the NRC.
 - A. Changing an approved reclamation plan, provided the change does not lessen or otherwise degrade the approved reclamation protection or milestone dates was considered an acceptable example.
 - B. Changes to the groundwater Corrective Action Plan to reflect actual site conditions was considered an example that should be included in the broad discussion recommended under 1. F Environmental Monitoring.
- 3. <u>NRC Amendments</u> Examples from Rio Algom of changes that would require a license amendment. All parties agreed that the following were good examples of such changes:
 - A. Changing an approved financial surety regardless of whether the change is to the surety instrument or the amount.

B. Changing or applying an Alternate Concentration Limit.

- C. Changing any aspect of the facility or site that impacts compliance with the National Historic Preservation Act.
- D. Changing the licensee's reclamation milestone dates.

AMC indicated that one fact became clear as a result of the discussion; the licensee's conception that the addition of the performance-based condition would, by itself, give the licensees the ability to determine the need to comply with or change existing license conditions is incorrect.³⁶ Therefore, as part of any amendment application for the general performance-based condition, each licensee should review its license to determine what specific conditions could be changed to criteria-based conditions like lA or 1B. AMC asked that the NRC provide a copy of a current or "modern" type license to use an example.

NRC/Industry Workshop Agenda and Date

Other than minor changes to the proposed agenda, provided as Attachment 3, all parties agreed with the workshop agenda. With regard the actual meeting, the NRC noted that DOE would like to participate in the workshop, since it will be taking title to these sites for the long term. Regarding the length of the workshop, AMC indicated that it should know the actual number of companies that will participate in approximately a week, but it looked as if the workshop will take two days. It was agreed that the workshop would be in a hotel conference center in Denver, the week of March 7 or March 14. AMC agreed to get with the NRC on the preferred week by the week of January 31, 1994. NRC also provided AMC representatives a copy of the Questions and Answers from all categories of NRC licensees on the recent revisions to 10 CFR Part 20 (see attachment 4).

ACTIONS TO BE TAKEN:

- 1. The NRC indicated that it would check on the current status of the revision to the policy statement on open meetings.
- 2. COGEMA was asked to provide the NRC with specific information on the cases where NRC disagreed with its attempt to change the process circuit after determining that no safety or environmental impact.
- 3. The NRC indicated that it would provide a copy of a more current or "modern" license to AMC.
- 4. AMC proposed to expand and better focus the examples. This will include transition issues, "grey area" recommendations, and the use of "significant" degradation. This revision is to be provided by three weeks before the workshop for NRC review. The objective is to have a revised strawman document to hand out for comment at the workshop.
- 5. AMC will get back to NRC with a proposed workshop date the week of January 31, 1994.

ENCLOSURE 2

1.	Rio Algom Mining Corp.		3.	SUA-1548
2. 6305 Waterford Boulevard, Suite 325		4.	March 1, 1997	
	Oklanoma City, Oklanoma /3118		5.	40-8964
6.	Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8.	Maximum posession
а.	Natural Uranium	a. Any	а.	Unlimited
b.	Byproduct materials as defined in 10 CFR Part 40.4	b. Unspecified	þ.	Quantity generated under operations authorized by this license.

- 9. ADMINISTRATIVE CONDITIONS
- 9.1 All notices to NRC required by this license shall be addressed to Director, Uranium Recovery Field Office.
- 9.2 Authorized place of use shall be the licensee's Smith Ranch facilities in Converse County, Wyoming.
- 9.3 Authorized use is for uranium recovery from pregnant lixiviant in accordance with statements, descriptions, and representations contained in Sections 3.0, 4.0, 5.0, 6.0, 7.0, 8.0 and 9.0 of the licensee's application submitted by cover letter dated March 31, 1988, as revised by page changes submitted on May 10, June 30, and August 30, 1988; February 15, February 28, March 13, March 20, March 28, April 5, September 30, December 5, and December 10, 1991. In addition, the licensee shall conduct its activities in accordance with the provisions in the following:

of Radiation Dose.

material disposal.

Submittal Date Description

July 13, 1990

Responses to NRC comments and questions,

October 4, 1990

.

April 5, 1991

May 7, 1991

report and recommendations, proposing changes to the mine facilities layout.

monitor-well-spacing calculations.

including aquifer pump-test analyses, and

Cover letter submitting MILDOS-Area Predictions

Letter providing proposal for waste byproduct

Cover letter transmitting consulting historian's

July 12, 1991O-Sand deferral and interim environmental
monitoring plan.

September 3, 1991 Cover letter assigning new Radiation Safety Officer for the Smith Ranch project.

Regardless of the above, the following license conditions shall override any conflicting statements contained in the licensee's application and supplements.

- 9.4 Any significant changes to the State of Wyoming mining permit area illustrated on Map C-1 of the licensee's March 31, 1988, application shall require approval by the NRC in the form of a license amendment.
- 9.5. The licensee is authorized to dispose of waste byproduct material from the Smith Ranch facility at the Quivira Mining Corp. tailings pile, New Mexico. In the event this disposal option becomes unavailable, the licensee is required to notify the NRC within 7 working days of the expiration date. A new agreement must be submitted for NRC approval within 90 days of expiration, or the licensee will be prohibited from further lixiviant injection.

Yellowcake and byproduct waste material, other than samples for research, shall be transferred only to other source material licensees unless specific prior approval is granted by the NRC in the form of a license amendment. The licensee shall maintain permanent record of all transfers made under the provisions of this condition.

- 9.6 Before engaging in any activity not previously assessed by the NRC, including activities outside the State permit area, the licensee shall prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not previously assessed or that is greater than that previously assessed, the licensee shall provide a written evaluation of such activities and obtain prior approval of the NRC in the form of a license amendment.
- 9.7 No commercial mining shall commence prior to submittal to the NRC for review and approval of a disposal plan for byproduct material which may exist in the mine water treatment ponds, formerly utilized in the licensee's pilot project. The submittal shall provide confirming byproduct characterization data, a disposal plan in accordance with 10 CFR Part 40, Appendix A, and a reclamation schedule.
- 9.8 The licensee shall provide buffer zones and construct its facilities in accordance with the recommendations made in its historical consultant's report submitted May 7, 1991, in order to prevent adverse effects upon historic and prehistoric resources found in the State permit area. Land disturbance plans and well-field facility design shall be coordinated with NRC and the Bureau of Land Management in Mills, Wyoming.

In addition to the May 7, 1991, submittal, in order to assure that no disturbance of cultural resources occurs, the licensee shall have an archeological and historical artifact survey completed prior to disturbing any areas not addressed in its application date March 31, 1988. The results of the surveys, an evaluation of site eligibility for the National Register of Historic Places, and an analysis of the project's effect, shall be submitted to NRC for review and approval. No disturbance shall occur until the licensee has received authorization from. NRC to proceed.

In addition, all work in the immediate vicinity of previously undiscovered buried cultural resources unearthed during the disturbance of land shall cease until approval to proceed has been granted by the NRC.

- 9.9 Release of equipment or packages from the restricted area shall be in accordance with the attachment to this license entitled, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984.
- 9.10 Standard operating procedures (SOPs) shall be established for all operational activities involving radioactive materials that are handled,

processed, stored or transported by employees. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed. In addition, written procedures shall be established for nonoperational activities to include in-plant and environmental monitoring, bioassay analysis, and instrument calibration. An up-todate copy of each written procedure shall be kept in each area where it is used.

All written procedures shall be reviewed and approved in writing by the RSO before being implemented and whenever a change in a procedure is proposed. The RST shall document that all existing facility procedures are reviewed and approved on an annual basis.

9.11 The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criterion 9, adequate to cover the estimated costs, if accomplished by a third party, for completion of the NRC-approved site closure plan including; aboveground decommissioning and decontamination, the cost of offsite disposal of radioactive solid process or evaporation pond residues, and groundwater restoration, as warranted. Within 3 months of NRC approval of a revised closure plan and cost estimate, the licensee shall submit, for NRC review and approval, a proposed revision to the financial surety arrangement if estimated costs in the newly approved site closure plan exceed the amount covered in the existing financial surety. The revised surety shall then be in effect within 3 months of written NRC approval.

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criterion 9, shall be provided to the NRC by June 30 of each year. If the NRC has not approved a proposed revision 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing arrangement, prior to expiration, for 1 year. Along with each proposed revision or annual update, the licensee shall submit supporting documentation showing a breakdown of the costs and the basis for the cost estimates with adjustments for inflation, maintenance of a minimum 15 percent contingency, changes in engineering plans, activities performed, and any other conditions affecting estimated costs for site closure. The licensee shall also provide the NRC with copies of suretyrelated correspondence submitted to the State, a copy of the State's surety review, and the final approved surety arrangement. The licensee must also ensure that the surety, where authorized to be held by the State, expressly identifies the NRC-related portion of the surety and covers the above-ground decommissioning and decontamination, the cost of offsite disposal, soil and water sample analyses, and ground-water restoration associated with the site. The basis for the cost estimate is the NRC-approved site closure plan or the NRC-approved revisions to the plan. The site closure plan, cost estimates, and annual updates should follow the outline in the attachment to this license entitled "Recommended Outline for Site Specific Reclamation and Stabilization Cost Estimates."

Within 90 days of the issuance of this license, the licensee shall submit a surety instrument acceptable to the State of Wyoming and the NRC, in an amount no less than \$7,500,000. This surety shall be written in favor of the State of Wyoming or the NRC for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, and shall be continuously maintained until a replacement is authorized by both the State of Wyoming and the NRC.

- 9.12 At least 30 days prior to initial well-field and processing plant testing, the licensee shall assign a radiation safety officer (RSO) to the site on a permanent full-time basis.
- 9.13 Any changes to the licensee's corporate organizational structure illustrated in Figure 9-4 of the March 31, 1988, application, as amended

by the submittal dated December 10, 1991, shall require approval of the NRC in the form of a license amendment. In the event key radiation safety staff are reassigned, their qualifications shall also be reviewed and approved by the NRC.

9.14 In addition to the responsibilities and qualifications specified in Chapter 9 of the licensee's March 31, 1988, application, as amended, the Radiation Safety Officer (RSO) shall be qualified as specified in Sections 1.2 and 2.4.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills will be As Low As Reasonably Achievable," dated May 1983. The RSO shall also receive a minimum of 40 hours of related health and safety refresher training every two years.

The licensee shall have a Radiation Safety Technician (RST) assigned full time to the site who shall report directly to the Plant Supervisor on matters dealing with radiological safety. In addition, the RST shall have access to the RSO at all times. The RST shall have the qualifications as specified in Section 2.4.2 of Regulatory Guide 8.31, and the responsibilities as specified in chapter 9 of the licensee's March 31, 1988, application as amended.

- 9.15 The licensee shall have a training program for all site employees as described in Section 2.5 of Regulatory Guide 8.31, and as detailed in Section 9.3 of the licensee's March 31, 1988, application, as amended.
- 9.16 The licensee is hereby exempted from the requirements of Section 20.203(e)(2) of 10 CFR 20 for posting areas within the facility, provided that all entrances to the facility are conspicuously posted in accordance with Section 20.203(e)(2) and with the words, "CAUTION - ANY AREA OR ROOM WITHIN THIS FACILITY MAY CONTAIN RADIOACTIVE MATERIAL."
- 9.17 The licensee shall implement the Emergency Action Plan for Accidents as detailed in Appendix G of the licensee's March 31, 1988, application, as amended.
- 10. OPERATIONAL LIMITS, CONTROLS, AND RESTRICTIONS
- 10.1 The annual throughput shall not exceed an average flow rate of 6000 gallons per minute, exclusive of restoration flow. Annual yellowcake production shall not exceed 2 million pounds.
- 10.2 Any major changes in the fluid-flow balance or processing plant circuit, as illustrated and described in Figures 3-2 and 4-3 of the licensee's March 31, 1988, application, as amended, shall be reviewed by the RSO and shall be submitted to the NRC for prior approval in the form of a license amendment.
- 10.3 The licensee shall maintain effluent control systems as specified in Section. 4.1 of the license application dated March 31, 1988, with the following additions:
 - a. Yellowcake drying operations shall be immediately suspended if any of the emission control equipment for the yellowcake drying or packaging areas is not operating within specifications for design performance.
 - b. The licensee shall, during all periods of yellowcake drying operations, assure that the manufacturer recommended pressure is maintained in the heating chamber. This shall be accomplished by either (1) performing and documenting checks of air pressure differential approximately every 4 hours during operation, or (2) installing instrumentation which will signal an audible alarm if air pressure differential falls below the manufacturer's

recommended levels. If an audible alarm is used, its operation shall be checked and documented daily.

- c. Air pressure differential gauges for other emission control equipment shall be read and the readings documented at least once per shift during operations.
- 10.4 The licensee shall perform well integrity tests on each injection and production well before the wells are utilized and on wells that have been serviced. The integrity test shall pressurize the well to 125 percent of the maximum operating pressure and shall maintain 95 percent of this pressure for 10 minutes to pass the test. If any well casing failing the integrity test cannot be repaired, the well shall be plugged and abandoned. During well-field operations, injection pressures shall not exceed the integrity test pressure at the injection well heads.
- 10.5 The licensee shall utilize sodium carbonate/bicarbonate as the lixiviant with an oxygen or hydrogen peroxide oxidant. Any variation from this combination shall require a license amendment.
- 10.6 The licensee is prohibited from constructing waste water evaporation ponds prior to NRC review and approval of pond designs and specifications. Pond design shall allow for sufficient reserve capacity in the evaporation pond system to enable the transfer of the contents of any one pond to the other ponds. All retention ponds shall be designed to meet requirements of NRC Regulatory Guide 3.11, Staff Position Paper No. WM-8101, and WDEQ.
- 10.7 The licensee shall maintain an area within the restricted area boundary for storage of contaminated materials prior to their disposal. All contaminated wastes and evaporation pond residues shall be disposed at a licensed radioactive waste disposal site.
- 10.8 All liquid effluents from process buildings and other process waste streams, with the exception of sanitary wastes, shall be returned to the process circuit, or discharged to the solution evaporation ponds. All changes to the liquid effluent disposal plan shall be approved by license amendment.
- 10.9 Prior to mining, baseline water quality data for the constituents identified in Table 5.1 of the application dated March 31, 1988, as amended, shall be established for each mining unit prior to mining at the following points: (a) all mining zone perimeter monitor wells; (b) two upper and two lower aquifer monitor wells per mining unit; and (c) one production/injection well per acre.
- 10.10 The licensee is prohibited from conducting well-field installation in the southwestern part of the State of Wyoming permit area, T35N R74W, until aquifer characteristics have been tested, reviewed, and approved by NRC.
- 10.11 The licensee is prohibited from commencing aquifer restoration prior to review and approval of an occupational safety plan addressing the deployment of chemical reducing agents in the processing plant or well fields.
- 10.12 For work where the potential for exposure to radioactive materials exists and for which no SOP exists, a radiation work permit (RWP) shall be required. Such permits shall describe the following:
 - a. The scope of work to be performed.
 - b. Any precautions necessary to reduce exposure to uranium and its

daughters to levels as low as is reasonably achievable (ALARA).

c. Any supplemental radiological monitoring and sampling required during and following completion of the work. Nonroutine maintenance involving exposure of workers to airborne particulates of uranium and its daughters shall require the use of continuous breathing zone monitoring.

The RSO, RST, or their designees shall indicate by signature the review of each RWP prior to the initiation of the work.

- 10.13 Any visitor, including contractors, shall be required to register at the office and shall be given appropriate instruction in the areas of security, safety, and radiation protection, prior to entering controlled or restricted areas.
- 10.14 The licensee shall issue to all site employees, either thermoluminescent dosimeters (TLDs) or film-type dosimeters which shall be exchanged and read on a quarterly frequency.
- 10.15 The licensee shall require that all process and maintenance workers who work in yellowcake areas or work on equipment contaminated with yellowcake wear protective clothing including coveralls and boots or shoe covers. Workers who package yellowcake for transport shall additionally wear gloves.
- 10.16 Eating shall be allowed only in administrative offices and enclosed lunch areas that are separated from the process areas.
- 10.17 Before leaving the restricted area, all process workers shall shower or monitor themselves using a calibrated alpha survey instrument. Meeting or exceeding the radiation level of 1000 dpm/100 cm² shall require personnel to decontaminate and resurvey themselves. The licensee shall perform spot surveys for alpha contamination at least quarterly on all workers leaving the facility.
- 10.18 All radiation monitoring, sampling, and detection equipment shall be recalibrated after each repair and as recommended by the manufacturer, or at least annually, whichever is more frequent. In addition, all radiation survey instruments shall be operationally checked with a radiation source each day when in use.
- 10.19 Effective during the preoperational period of the Smith Ranch project, the licensee's O-sand pilot facility shall remain in stand-by status, in accordance with the licensee's July 12, 1991, submittal.
- 11. MONITORING, RECORDING, AND BOOKKEEPING REQUIREMENTS
- 11.1 Flow rates on each injection and recovery well and manifold pressures on the entire system shall be measured and recorded daily. During wellfield operations, injection pressures shall not exceed the integrity test pressure at the well heads.
- 11.2 The licensee shall perform and document daily visual inspections of the evaporation pond embankments, fences and liners, as well as measurements of pond freeboard and checks of the leak detection system. Any time 6 inches or more of fluid is in the leak detection system standpipes, it shall be analyzed for specific conductance and chloride. If action levels for these parameters are exceeded, a pond leak shall be confirmed. The pond level shall be lowered by transferring its contents into an alternate cell, and repairs undertaken.
- 11.3 Each monitor well shall be sampled and tested for chloride, conductivity, and alkalinity on a biweekly basis. If two UCLs are

exceeded in a well or if a single UCL value is exceeded by five standard deviations or more above baseline monitoring data, the licensee shall take a confirmation water sample within 24 hours and analyze it for the excursion indicators. If the second sample does not indicate exceedance, a third sample shall be taken within 48 hours. If neither the second or third indicate exceedance, the first sample shall be considered in error.

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If the second or third sample indicates an exceedance, the well in question shall be placed on excursion status. During excursion status, sampling and testing frequency shall be increased to weekly for all monitor wells completed in the same monitored zone for the effected mining unit.

- 11.4 The licensee shall establish an effluent and environmental monitoring program in accordance with Table 5.3 of the application dated March 31, 1988, as amended.
- 11.5 During the preoperational period of the Smith Ranch project, environmental and in-plant monitoring shall be conducted in accordance with the licensee's July 12, 1991, submittal. All other monitoring requirements in this license shall be suspended where they differ from that submittal. Notwithstanding the submittal, the licensee shall implement the following additions to its stand-by operations:
 - a. A ground-water bleed rate shall be established in the O-sand pilot well field sufficient to maintain flow into the well field from all directions. Ground-water gradients shall be monitored by observing water levels monthly in wells OM-1 through OM-5, OI-1, OI-2, OI-10, OI-3, and OT-1. Monitoring data with a water-table map shall be provided in each semiannual environmental monitoring report.
 - b. Environmental gamma monitoring shall continue on a quarterly basis at the downwind and background locations.
 - c. In-plant gamma surveys shall be completed following completion of yellowcake precipitation and filter press use, or semiannually, whichever is more frequent. Airborne uranium monitoring of the work station and breathing zone shall be conducted on a continuous basis during filter press operation.
- 11.6 During commercial production, the RSO, RST, or a trained designee shall perform and document a daily walk-through inspection of all operating areas. The inspection's purpose is to ensure that all radiation protection and monitoring requirements are being followed.
- 11.7 The licensee shall perform monthly surveys for natural uranium and radon progeny as shown in Figure 9-2 of the licensee's application dated March 31, 1988, as amended. In addition, the licensee shall conduct spot surveys to confirm the adequacy of the yellowcake and radon progeny monitoring plan. If radon or radon progeny concentrations exceed 8 picocuries per liter (pCi/l) or 0.08 working level (WL), respectively, sampling shall be weekly until 4 consecutive weekly samples exhibit less than 8 pCi/l or 0.08 WL.

The calculation of internal exposure to radon, radon progeny, or natural uranium shall be based on a Time Weighted Exposure (TWE) calculation incorporating a consideration of both occupancy times and average airborne working levels or activity concentrations. If occupancy times are established as an average for each category of worker, the licensee shall also, by means of a semiannual time study, determine the basis upon which average occupancy periods are established. If any worker reaches or exceeds 25 percent of the maximum permissible exposure limits as specified in 10 CFR Part 20, based upon a calculated TWE for the week or the calendar quarter, dependent on the solubility of the material, the RST shall initiate an investigation of the employee's work record and exposure history to identify the source of the exposure. Necessary corrective measures shall be taken to ensure reduction of future exposures to as low as is reasonably achievable. Records shall be maintained of these investigations.

- 11.8 The licensee shall perform quarterly gamma radiation surveys in enclosed areas at the locations specified in Figure 9-3 of the licensee's application dated March 31, 1988, as amended. In addition, the licensee shall conduct spot checks to confirm the adequacy of the gamma radiation monitoring plan.
- 11.9 The licensee shall perform monthly alpha contamination surveys of the facility laboratory and offices and weekly surveys of eating and change areas, as specified in licensee's application dated March 31, 1988, as amended. If samples are analyzed in the facility laboratory, the licensee shall survey all surfaces used for urine sample preparation preceding the analyses as specified in Section 3.5 of Regulatory Guide 8.31.

If the alpha contamination levels exceed those listed in the attachment to this license entitled, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984, the area shall be decontaminated.

- 11.10 Occupational exposure calculations shall be performed and documented within 1 week of the end of each regulatory compliance period as specified in 10 CFR 20.103(a)(2) and 10 CFR 20.103(b)(2). Routine radon daughter and particulates shall be analyzed in a timely manner to allow exposure calculations to be performed in accordance with this condition. Nonroutine samples shall be analyzed and the results reviewed by the RST within 2 working days after sample collection.
- 11.11 The results of the sampling, analyses, surveys, and monitoring, the calibration of equipment, reports on audits and inspections, all meetings and training courses required by this license, and any subsequent reviews, investigations, and corrective actions, shall be documented. Unless otherwise specified in the NRC regulations, all such documentation shall be maintained for a period of at least 5 years.
- 12. REPORTING REQUIREMENTS
- 12.1 At least 2 months prior to lixiviant injection in each mining unit, baseline water quality data shall be submitted to the NRC. Upper control limits (UCLs) and restoration criteria shall be calculated in accordance with the licensee's application dated March 31, 1988, as amended.
 - a. The submittal shall propose, in the form of a license amendment, UCLs for chloride, conductivity, and alkalinity in all monitoring wells for each mining unit.
 - b. The submittal shall propose, in the form of a license amendment, ground-water restoration criteria for each mining unit.
- 12.2 The results of effluent and environmental monitoring described in Table 5.3 of the license application shall be reported in accordance with 10 CFR 40, Part 40.65, to the NRC, Uranium Recovery Field Office. The report shall also include injection rates, recovery rates and injection manifold pressures.

- 12.3 In the event a lixiviant excursion is confirmed by ground-water monitoring, NRC shall be notified by telephone within 24 hours and by letter within 7 days from the time the excursion is confirmed. Upon confirmation of an excursion, the licensee shall immediately implement corrective action. An excursion is considered concluded when the concentrations of excursion indicators are below the concentration Hereis defining an excursion for three consecutive weekly samples.
- 12.4 A written report shall be submitted to the NRC within 2 months of excursion confirmation. The report shall describe the excursion event, corrective actions taken and results obtained. If wells are still on excursion at the time the report is submitted, injection of lixiviant within the well field on excursion shall be terminated until the excursion has ceased and the affected aquifer has been remediated.

12.5. In the event that evaporation pond standpipe water analyses indicate that a pond is leaking, the NRC shall be notified by telephone within 48 hours of verification. Standpipe water quality samples shall be analyzed for the leak parameters once every 7 days during the leak period and once every 7 days for at least 2 weeks following repairs.

A written report shall be filed with the NRC within 30 days of first notifying the NRC that a leak exists. This report shall include analytical data and describe the mitigative action and the results of that action.

- 12.6 The licensee shall maintain a log of all significant solution spills and notify the NRC by telephone within 48 hours of any failure which may have a radiological impact on the environment. Such notification shall be followed, within 7 days, by submittal of a written report detailing the conditions leading to the failure or potential failure, corrective actions taken and results achieved. This requirement is in addition to the requirements of 10 CFR Part 20.
- 12.7 Three months prior to commencing ground-water restoration in each well field, the licensee shall submit a restoration plan to the NRC. The restoration plan shall have a goal of returning all affected groundwater constituents to baseline levels on a mining-unit average basis. The licensee shall be required to demonstrate baseline conditions are not achievable in order to apply any alternate standard of performance.
- 12.8 The licensee shall submit a detailed decommissioning plan to the NRC for review and approval at least 12 months prior to planned final shutdown of mining operations.
- The licensee shall perform an annual ALARA audit of the radiation safety program which shall be conducted by the RSO or other authorized 12.9 individual with equivalent qualifications, in accordance with Section: 2.3.3 of Regulatory Guide 8.31. A report of this audit shall be submitted to the NRC within 60 days after conducting the audit. The report shall include detailed summaries of the analytical results of the radiological surveys. In order to evaluate the ALARA objective, the licensee shall, at a minimum, review the following records: (a) Bioassay results including any actions taken when the results exceeded action levels in Table 1 of Regulatory Guide 8.22, "Bioassay at Uranium Mills," dated January 1987; (b) Exposure records of external and internal time-weighted calculations (TWE); (c) Safety meeting minutes, attendance records, and training program records; (d) Daily inspection log entries and summary reports of the monthly reviews; (e) In-plant radiological survey and monitoring data, as well as environmental radiological effluent and monitoring data; (f) Surveys required by radiation work permits; (g) Reports on overexposure submitted to NRC, MSHA, or the State of Wyoming; and (h) Reviews of operating and

monitoring procedures completed during the period.

The audit shall also address any noticeable trends in personnel exposures for identifiable categories of workers and types of activities, any trends in radiological effluent data, and the performance of exposure and effluent control equipment as well as its utilization, maintenance, and inspection history. Any recommendations to further reduce personnel exposures or environmental releases of uranium or radon and radon progeny shall be included in the report.

- 12.10 The licensee shall implement a urinalysis program as outlined in Revision 1 to Regulatory Guide 8.22, with the following additions:
 - a. Baseline urinalysis shall be performed for all permanent employees prior to their initial assignment at the facility.
 - b. Any time uranium in urine reaches or exceeds an action level of 15 micrograms per liter $(\mu g/1)$ for any worker, the licensee shall provide documentation, in the annual ALARA audit, to the NRC indicating what corrective actions have been performed to satisfy the recommendations of Revision 1 to Regulatory Guide 8.22.

Any time an uranium action level of 35 μ g/l for two consecutive urine specimens or 130 μ g/l for any one specimen is reached or exceeded, the licensee shall provide documentation within 30 days to the NRC indicating what corrective actions have been performed to satisfy the recommendations of Revision 1 to Regulatory Guide 8.22.

FOR THE NUCLEAR REGULATORY COMMISSION

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Date:

Ramon E. Hall, Director Uranium Recovery Field Office Region IV

EXHIBIT C

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

JUL 1 9 1994

NOTICE OF SIGNIFICANT MEETING

Date/Time of Meeting:

August 12, 1994, 9:00 am to 4:00 pm

Location of Meeting:

Conference Room T7F5 U.S. Nuclear Regulatory Commission Two White Flint 11545 Rockville Pike Rockville, Maryland

Purpose of Meeting:

The purpose of the meeting is to discuss the example licenses developed for Power Resources, Inc. (PRI) and Energy Fuels Nuclear, Inc. (EFN), as examples of the implementation of the performance based license condition, as well as, updated license conditions.

<u>NRC Attendees</u>:

J. Holonich, D. Gillen, S. Wastler

Licensee Attendees:

R. Van Horn, EFN H. Roberts, EFN B. Kerney, PRI P. Hildenbrand, PRI

NOTE:

- (1) Attendance at this meeting by NRC personnel other than those listed above should be made known by Friday, August 5, 1994, via telephone call to Sandra L. Wastler at 415-6724.
- (2) Due to the subject matter and nature of this meeting, this meeting is open to attendance by members of the general public.

Approved By:

Joseph J. Holonich, Chief High-Level Waste and Uranium Recovery Projects Branch Division of Waste Management, NMSS

cc: See attached list

C LIST FOR LETTER DATED

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Quivira Mining Company ATTN: Bill Ferdinand, Manager Radiation Safety, Licensing & Regulatory Affairs 6305 Waterford Blvd., Suite 325 Oklahoma City, OK 73118

UNC Mining and Milling ATTN: Juan R. Velasquez 1700 Louisiana Blvd., NE, Suite 230 Albuquerque, NM 87110

Frace Energy Company N: Michael P. Grace O. Box 1033 Venice, CA 90291

Homestake Mining Company ATTN: Fred Craft P.O. Box 98 Grants, NM 87020

ATTN: Manager, Nuclear Licensing and Regulatory Affairs 5N 157B Lookout Place 1101 Market Street Chattanooga, TN 37402

Atlas Corporation ATTN: R. E. Blubaugh Vice President of Environmental and Governmental Affairs Republic Plaza 370 Seventeenth St., Suite 3150 Denver, CO 80202-5631 Atlantic Richfield Company ATTN: Ron S. Ziegler P.O. Box 638 Grants, NM 87020

Hydro Resources, Inc. ATTN: Mark Pelizza Uranium Resources Inc. 12750 Merit Drive, Suite 1210, LB 12 Dallas, TX 75251

Sohio Western Mining Company 10 East South Temple P.O. Box 11248 Salt Lake City, UT 84147

Ferret Exploration Company of Nebraska, Inc. ATTN: Steve Collings 216 Sixteenth St. Mall, Suite 810 Denver, CO 80202

Rio Algom Mining Corp. ATTN: Bill Ferdinand, Manager Radiation Safety, Licensing & Regulatory Affairs 6305 Waterford Blvd., Suite 325 Oklahoma City, OK 73118

Plateau Resources Limited P.O. Box 2111 Ticaboo Lake Powell, UT 84533-2111 Umetco Minerals Corporation ATTN: R. A. Van Horn Manager of Operations P.O. Box 1029 Grand Junction, CO 81502 Umetco Minerals Corporation ATTN: Pat J. L. Lyons

General Superintendent P.O. Box 151 Riverton, WY 82501

U.S. Energy Corporation ATTN: Kenneth Webber 877 North 8th West Riverton, WY 82501

Exxon Corporation c/o Exxon Coal and Minerals Company ATTN: Dave Range Staff Environmental Engineer P.O. Box 1314 Houston, TX 77251-1314

Pathfinder Mines Corporation ATTN: Robert Poyser 7401 Wisconsin Avenue hesda, MD 20814-3416

Pathfinder Mines Corporation North Butte ISL Operations ATTN: Donna L. Wichers 935 Pendell Boulevard Mills, WY 82644

Petrotomics Company ATTN: Ron Juday Supervisor P.O. Box 8509 Shirley Basin, WY 82615 Bear Creek Uranium ATTN: Gary Chase Radiation Safety Officer P.O. Box 366 Casper, WY 82602

American Nuclear Corporation ATTN: Stephen A. Carpenter 550 North Poplar Street, Suite No. 6 Casper, WY 82602

Power Resources, Inc. ATTN: Steve Morzenti Vice President 1560 Broadway, Suite 1470 Denver, CO 80202

Total Minerals Corporation ATTN: Chuck Foldenauer 913 Foster Road Casper, WY 82604

Pathfinder Mines Corporation ATTN: Lee Nugent Mine Manager P.O. Box 831 Riverton, WY 82501

Pathfinder Mines Corporation ATTN: Robert Hopkins Mine Manager Shirley Basin Mine Shirley Basin, WY 82615

Western Nuclear, Inc. ATTN: Stephanie Baker 200 Union Blvd., Suite 300 Lakewood, CO 80228 Kennecott Uranium Company ATTN: Oscar Paulson P.O. Box 1500 Rawlins, WY 82301

State of Nebraska ATTN: Tom Lamberson, Deputy Director Department of Environmental Quality P.O. Box 98922 Lincoln, NE 68509-8922

State of Utah TN: William J. Sinclair, Director Division of Radiation Control Department of Environmental Quality 168 North 1950 West P.O. Box 144850 Salt Lake City, UT 84114-4850

State of Colorado ATTN: Robert M. Quillin, Director Radiation Control Division Department of Health 4300 Cherry Creek Dr., So. Denver, CO 80222-1530

Alte of Washington AITN: Terry R. Strong, Director Division of Radiation Protection Department of Health P.O. Box 47827 Olympia, WA 98504-7827

Uranium Producers of America ATTN: Joseph H. Card, President c/o Jon Indall, Carpenter, Comau, et. al. P.O. Box 669 Santa Fe. NM 87504-0669 State of New Mexico ATTN: Benito Garcia, Chief Hazardous and Radioactive Materials Bureau Camino De Los Marquez, Suite 4 P.O. Box 26110 Santa Fe, NM 870502

State of South Dakota ATTN: Mike Pochop, Scientist Department of Environment and Natural Resources Division of Environmental Regulation 523 E. Capitol, Joe Foss Building Pierre, SD 57501

State of Wyoming ATTN: Roger Fransen, Legal and Natural Resources Specialist State Planning Coordinator's Office Herschler Building, 4th Floor East Cheyenne, WY 82002

State of Texas ATTN: Susan S. Ferguson, Director Hazardous Waste Division Texas Water Commission P.O. Box 13087 Austin, TX 78711-3087

American Mining Congress ATTN: James E. Gilchrist, Vice President 1920 N Street N.W., Suite 300 Washington, DC 20036-1662

New Mexico Mining Association ATTN: Charles E. Roybal, Executive Director 6020 Academy N.E., Suite 201 Albuquerque, NM 87109-3315 Wyoming Mining Association ATTN: Marion Loomis, Executive Director P.O. Box 866 Cheyenne, Wyoming 82003 Colorado Mining Association ATTN: David R. Cole, President 1340 Colorado State Bank Building 1600 Broadway Denver, CO 80202-4913

Utah Mining Association ATTN: Jack E. Christensen, President 825 Kearns Building Salt Lake City, UT 84101
January 11, 1999

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges: Peter B. Bloch, Presiding Officer Thomas D. Murphy, Special Agent

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In the Matter of:

HYDRO RESOURCES, INC. 2929 Coors Road, Suite 101 Albuquerque, NM 87120 Docket No. 40-8968-ML ASLBP No. 95-706-01-ML

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing documents, HYDRO RESOURCES, INC.'S RESPONSE TO EASTERN NAVAJO DINÉ AGAINST URANIUM MINING'S AND SOUTHWEST RESEARCH AND INFORMATION CENTER'S DECEMBER 7, 1998 BRIEF IN OPPOSITION TO HYDRO RESOURCES, INC.'S APPLICATION FOR A MATERIALS LICENSE WITH RESPECT TO COMPLIANCE WITH THE NATIONAL HISTORIC PRESERVATION ACT, NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT AND RELATED CULTURAL RESOURCE ISSUES, and HYDRO RESOURCES, INC.'S BRIEF IN OPPOSITION TO THE BRIEFS SUBMITTED BY INTERVENORS EASTERN NAVAJO DINE AGAINST URANIUM MINING, SOUTHWEST RESEARCH AND INFORMATION CENTER, GRACE SAM, AND MARILYN MORRIS ON THE ISSUE OF PERFORMANCE-BASED LICENSING, in the above-captioned proceeding have been served on the following by first-class mail on this 11th day of January, 1999.

Administrative Judge Peter B. Bloch, Presiding Officer Atomic Safety and Licensing Board Two White Flint North 11545 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Office of the Secretary Attn: Rulemakings and Adjudications Staff One White Flint North Adjudicatory File Atomic Safety and Licensing Board One White Flint North 11555 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Office of Commission Appellate Adjudication One White Flint North 11555 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Administrative Judge Thomas D. Murphy Special Assistant Atomic Safety and Licensing Board Two White Flint North 11545 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Jep Hill, Esq. Jep Hill and Associates 816 Congress Avenue, Suite 1100 Austin, Texas 78701

Mitzi Young John Hull Office of the General Counsel U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001

Mr. Mark Pelizza Vice President URI, Inc. Lockbox 12 – 12750 Merit Drive, Suite 1020 Dallas, TX 75251

Mitchell W. Capitan, President Eastern Navajo-Diné Against Uranium Mining P.O. Box 471 Crownpoint, New Mexico 87313 11555 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Atomic Safety and Licensing Board Panel One White Flint North 11555 Rockville Pike U.S. Nuclear Regulatory Commission Rockville, Maryland 20852

Richard F. Clement, Jr., President Hydro Resources, Inc. 2929 Coors Road, Suite 101 Albuquerque, New Mexico 87120

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W. Paul Robinson Chris Shuey Southwest Research and Information Center P.O. Box 4524 Albuquerque, New Mexico 87106 Marilyn Morris c/o Roderick Ventura and Samuel D. Gollis DNA - People's Legal Services, Inc. P.O. Box 306 Window Rock, AZ 86515 Grace Sam c/o Roderick Ventura and Samuel D. Gollis DNA - People's Legal Services, Inc. P.O. Box 306 Window Rock, AZ 86515

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Counsel for Hydro Resources, Inc.

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