

SECRET NUMBER
PR-19,20,21 et al
(50 FR 13797) 70

BERWIND LAND COMPANY



A SUBSIDIARY OF

1150 ONE VALLEY SQUARE
CHARLESTON, WEST VIRGINIA 25301
(AREA CODE 304) 346-0569

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JUL 24 1985
BOOKETING & SERVICE
BRANCH

July 24, 1985

Mr. Nunzio Palladino, Chairman
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Palladino:

Please find attached a copy of a letter I have sent to a number of congressional representatives concerning the Nuclear Regulatory Commissions' proposed rules governing the use of small radioactive sealed sources used in coal exploration. As the owners of substantial coal reserves, we have in our coal exploration program logged in excess of 300,000 feet of boreholes over the past nine years without a single incident or loss of a probe.

The gamma-density log has been an effective and useful tool in the past, and we hope to rely on its use in the future. Therefore, I respectfully request that the Nuclear Regulatory Commission reconsider their position with regard to the coal exploration aspects of their proposed rules.

Very truly yours,

R. C. Brainard

R. C. Brainard, P.E.
Vice President

cc: T. V. Falkie

Attachment

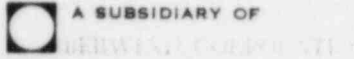
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add Anthony H. Tse, 1130SS
Bruce Carrico, 396SS

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BERWIND LAND COMPANY



A SUBSIDIARY OF

150 ONE VALLEY SQUARE
CHARLESTON, WEST VIRGINIA 25301
(AREA CODE 304) 346-0569

July 24, 1985

Senator John D. Rockefeller IV
3203 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Rockefeller:

I am writing to you regarding the negative effect certain rules proposed by the U.S. Nuclear Regulatory Commission would have on the coal industry--specifically, these rules are designated "Part 39 of 10CFR Chapter I" (Federal Register/Vol. 50, No. 67/Monday, April 8, 1985, pages 13,797-13,810).

The proposed rules govern the use of small radioactive sealed sources used in the coal exploration industry to produce high resolution density borehole logs. The high resolution density log run in open hole conditions is probably the most definitive and sophisticated geophysical parameter available to the coal industry since it: 1) provides detailed information on coal seam thickness and quality; 2) defines number and thickness of intraseam partings and character of critical roof and floor lithologies; 3) verifies core recovery in core drilled tests; and 4) allows highly accurate correlation of coal seams, partings, and other lithologic units. Information defined by the high resolution tool is of sufficient detail to allow its utilization as the sole source of data acquisition in rotary-drilled holes, thereby allowing the operator to use rotary techniques instead of the more expensive core-drilling in many situations.

The principal problem the proposed regulations would cause for the coal industry is the prohibition in section 39.51 of running a gamma-density log in any drill test which is not cased from top to bottom. This stipulation would have a number of severe consequences:

1. No more high-resolution open-hole density logs - All core drill tests would have to be logged through drillers steel utilizing a higher energy source and wider spacing between source and detector. This configuration and the "dampening" effect of the steel significantly reduces the resolution of the log. The last twenty years of technical progress in providing the coal industry with accurate, sophisticated density surveys would effectively be thrown out the window.

2. No more geophysical logging of lower-cost air rotary holes - Air rotary drilling followed by geophysical logging represents a fast and lower-cost method of generating needed exploration data. Since the logging tool will not fit inside rotary drill steel, there is no way to run a density log. Installation of a special casing for density logging would eliminate rotary drilling's cost and time-saving advantages. Elimination of the coal industry's rotary drilling option would cost the industry millions of extra dollars per year to generate the same amount of exploration data.
3. No more electric logging of uncased coal measures in gas wells - Geophysical logging of gas wells before casing is set through the coal measures represents the coal industry's cheapest method of obtaining borehole exploration data. Since the gas well operator pays for the drilling costs, the coal operator pays only for geophysical logging and for downtime on the drilling rig while the log is being run. Again, logging through the drilling tools or installation of special casings for logging are impossible or impractical. Once the permanent, grouted casing is set in the gas well, the chance for obtaining a useful density log is nearly non-existent. Loss of this low-cost exploration option would again represent a severe blow to the coal industry's exploration activities.

These regulations were drafted with oil and gas well logging in mind. In fact, a source within NRC told us that the researchers who wrote the proposed regulations, as late as one year ago, did not even know that coal exploration logging existed. Since the oil and gas industry routinely cases off the fresh water zone to prevent aquifer contamination by hydrocarbons, NRC assumed there would be no problem in requiring these casings to isolate the gamma-density sources from potential aquifers. No consideration of the costs and consequences to the coal industry of the proposed regulations is even mentioned in NRC's draft regulatory analysis. The NRC is, in effect, imposing the certainty of higher exploration costs and less accurate data upon us in order to prevent the very unlikely possibility that a logging tool could be lost or abandoned in a hole without casing.

Any aid you might give us would be appreciated. The additional restraints these rules impose are certainly of no real benefit in our industry at this time.

Very truly yours,

R. C. Brainard, P.E.
Vice President



Cyprus Coal Company
Subsidiary of Cyprus Minerals Company

DOCKET NUMBER
PROPOSED RULE **PR-19,20,21 et al (69)**
(50 FR 13797)

DOCKETED

7200 South Alton Way
Post Office Box 3299
Englewood, Colorado 80155
(303) 740-5100

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July 24, 1985

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing & Service Branch

Gentlemen:

Cyprus Coal Company formally objects to the proposed rule changes of discriminatory effects on the coal industry which would be imposed by enacting the rules regarding drill hole geophysical logging proposed in Part 39 of 10CFR Chapter I (Federal Register/Vol. 50, No. 67/Monday, April 8, 1985, pages 13, 797-13810).

Cyprus Coal, through its subsidiary companies in Kentucky, Pennsylvania, and Colorado, has been utilizing down hole geophysical logging tools as a cost effective exploration method for the past 8 years. We feel that the high resolution density log generated by use of the small radioactive sealed source (Americium 241) is the most definitive and sophisticated geophysical parameter available to the coal industry since it: 1) provides detailed information on coal seam thickness and quality; 2) defines number and thickness of in-seam partings and character of roof and floor lithologies; 3) verifies core recovery in core-drilled holes; 4) allows highly accurate correlation of coal seams, partings, and other lithologic units; and 5) provides sufficient detail to allow its utilization as the sole source of data acquisition in rotary-drilled holes, thereby allowing the explorationist to use rotary techniques instead of more expensive core-drilling in many situations.

The principal problem the proposed regulations would cause for the coal industry is the prohibition in Section 39.51 of running a gamma-density log in any drill test which is not steel-cased from top to bottom. This stipulation would have severe increased cost and time consequences:

1. No more high-resolution open-hole density logs - All core drill tests would have to be logged through drillers steel utilizing a higher energy source and wider spacing between source and detector. This configuration and the "dampening" effect of the steel significantly reduces the resolution of the log. The last twenty years of technical progress in providing the coal industry with accurate, sophisticated density surveys would effectively be thrown out the window.

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add: Anthony M. Tse, 113055
Bruce Carrico, 39655
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JUL 29 1985
Acknowledged by card.....

CYPRUS

Secretary of the Commission
U.S. Nuclear Regulatory Commission
July 24, 1985
Page 2

2. No more geophysical logging of lower-cost air rotary holes - Air rotary drilling followed by geophysical logging represents a fast and lower-cost method of generating needed exploration data. Since the logging tool will not fit inside rotary drill steel, there is no way to run a density log. Installation of a special casing for density logging would eliminate rotary drilling's cost and time saving advantages. Elimination of the coal industry's rotary drilling option would cost the industry millions of extra dollars per year to generate the same amount of exploration data (75%-100% increased drilling costs).
3. No more electric logging of uncased coal measures in gas wells - Geophysical logging of gas wells before casing is set through the coal measures represents the coal industry's cheapest method of obtaining bore hole exploration data. Since the gas well operator pays for the drilling costs, the coal operator pays only for geophysical logging and for downtime on the drilling rig while the log is being run. Again, logging through the drilling tools or installation of special casings for logging are impossible or impractical. Once the permanent grouted casing is set in the gas well, the chance for obtaining a useful density log is nearly non-existent. Loss of this low-cost exploration option would again represent a severe blow to the coal industry's exploration activities.

Cyprus Coal urges that the Commission should draft coal (mineral) logging rules which are separate from the oil and gas logging rules since these types of logging are so inherently different. We exhort the NRC to not prohibit open-hole logging but instead to adopt a set of safety guidelines for the open-hole use of logging tools and their recovery in the very unlikely event that they could be lost or abandoned in a test hole.

Sincerely,



Stuart R. Snow
Vice President, Technical Services

SRS/clr

URANIUM RESOURCES INC.

R. F. CLEMENT, JR.
Vice President — Exploration

DOCKETED
USNRC

'85 JUL 26 A11 44

July 22, 1985

OFFICE OF SECRETARY
DOCKETING & SERVICES
BRANCH

Secretary
Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Services Branch

Gentlemen:

Re: Proposed Rules in Federal Register, Volume 50, #67
Pages 13797 - 13810 39.51 Use of Sealed Source
in Well Without Surface Casing

Uranium Resources Inc. wishes to protest proposed rule making requiring that radioactive source logging tools be used only within wells where the fresh water sands have been cased.

In the uranium mining business in the United States the vast majority of uranium deposits (in excess of 95%) are found in shallow fresh water aquifers. One of the necessary tools that is used in uranium exploration and evaluation is a porosity electric logging tool utilizing either neutron or density probes. These probes contain a small radioactive source which detects porosity in sandstone reservoirs. It is necessary to ascertain the porosity of the ore sands within the ground in order to establish the economic viability of mining a deposit.

In the exploration and evaluation of sandstone uranium ore bodies, numerous inexpensive open holes are required to be drilled to evaluate the economic potential of the deposit. If each of these holes were required to have casing through the fresh water sands the entire length of the hole would be required to be cased. The casing of a hole would require 5 - 10 times the expenditure of drilling an uncased hole and would, therefore, make a thorough evaluation of a deposit uneconomical.

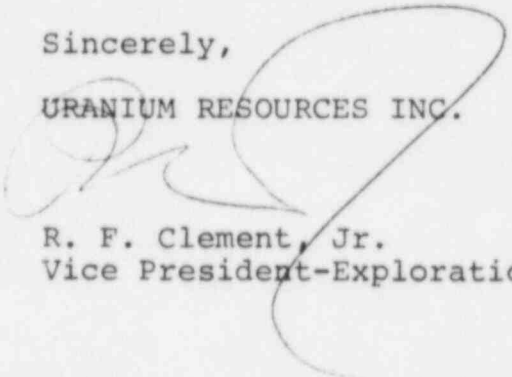
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Add: Anthony N. Tsai, 113055
Price Carico, 39655
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Nuclear Reactor Commission
July 22, 1985
Page Two

In order to place the proposed rule making in perspective, the uranium ore body and its associated daughter products that are contained within the fresh water aquifers are more radioactive by an order of magnitude than the small radioactive source that is used in evaluation of the deposits. We, therefore, recommend and request that the proposed rule making not apply to uranium exploration and evaluation.

Sincerely,

URANIUM RESOURCES INC.



R. F. Clement, Jr.
Vice President-Exploration

RFC:jsk