

S F Coal Corporation

6200 Uptown Blvd. NE., Suite 400
Box 27019
Albuquerque, New Mexico 87125
505/881-3050

DOCKET NUMBER
PROPOSED RULE

PR-19,20,21 et al.
(50 FR 13797) (72)

July 29, 1985

DOCKET

'85 JUL 30 P12:16

DOCKETING & SERVICE
BRANCH

FEDERAL EXPRESS

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

Attn: Docketing & Service Branch

Dear Sir:

The attached comments are offered to indicate our opposition to the proposed rule requiring casing a hole that encounters water before it can be logged.

Very truly yours,

G. G. Byers

G. G. Byers
Director-Public Affairs

GGB:gem
Attachment

DS10 11
Add: Bruce Carrico, 39655
Steven McGuire, 113055

8508010253 850730
PDR PR
19 50FR13797 PDR

JUL 29 1985

Acknowledged by card.....

COMMENTS TO PROPOSED RULES AFFECTING WELL LOGGING OPERATIONS

SF Coal Corporation offers the following comments with respect to the Nuclear Regulatory Commission's proposed rule prohibiting the use of a sealed radioactive source without surface casing unless procedures for protecting fresh water aquifer zones are specifically approved by the NRC. This rule would have a significantly detrimental impact on the economics of our coal drilling programs. If there is no effective alternative to using casing to protect the aquifer, the use of casing would make geophysical logging for coal ineffective as the casing inhibits readings of the penetrated lithologies to the extent that the logs produced would be useless for coal seam delineation. Even if alternative protection procedures could be devised, they would not always be possible to employ. For example, coal seams sometimes act as aquifers themselves and thus there would be no alternative to using casing to seal off such an aquifer.

The only alternative to geophysical logging currently available which would provide the same high level of data confidence would be to core each hole from top to bottom. This was the method commonly employed before geophysical logging of coal became viable and reliable. The requirement of coring every hole top to bottom to obtain the same data confidence level as geophysical logging would substantially increase drilling costs - perhaps by as much as four or five times. For just a single project like our Lee Ranch project with over 1500 drill holes this could amount to an additional four to five million dollars in exploration and development costs necessary to obtain a level of data confidence similar to that obtained from geophysical logging. Multiply this by the multitude of other drilling projects throughout the country and the added financial burden on the mining industry could easily reach several tens of millions of dollars in a single year.

This compares with only two incidents of contamination involving well logging in a single year (as documented in the Federal Register notice published April 8, 1985) out of the likely thousands of holes logged in a year's time. A prorated cost for the cleanup of these two incidents is about \$600,000 (2 of the 5 incidents with total cleanup costs of \$1.5 million).

The tradeoff between this \$600,000 cleanup cost versus the several tens of millions of dollars additional financial burden to be placed upon industry to maintain the current high level of data confidence is overwhelmingly out of balance. In short, it is a perfect example of regulatory overkill.

Besides the exemplary record of the logging industry - with only two incidents of contamination out of the likely thousands and thousands of holes logged - the level of contamination that could occur is also limited by the small source strengths utilized.

Thus, in balance, the proposed rule would have an adverse impact many magnitudes larger than the problem to be solved. It would seem much like using a nuclear warhead to eradicate an infestation of termites; it solves the problem but would cripple an entire industry.

We hereby emphatically request that this proposed rule not be implemented.

DOCKET NUMBER

PROPOSED RULE

PR-19, 20, 21 et al. (73)
(50 FR 13797)**Kiewit Mining & Engineering Co.**P.O. Box 3049
Sheridan, Wyoming 82801
(307) 672-3401

DOCKETED

July 25, 1985

85 JUL 30 12:17

DOCKETING & SERVICE
BRANCHSecretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Docketing and Service Branch

Gentlemen:

Kiewit Mining and Engineering Company has only recently become aware of the proposed rule changes for Licenses and Radiation Safety Requirements for Well-Logging Operations as published in the Federal Register dated April 8, 1985. Kiewit Mining and Engineering takes exception to Rule §39.51 prohibiting use of a sealed radioactive source in an exploratory drill hole without metal surface casing. It is standard operating procedure during mineral exploration programs to log open holes with a combination wireline logging tool consisting of natural gamma, density (containing a radioactive source), resistivity, spontaneous potential, and caliper sensors contained within the same probe. The density log is critically important in accurate determination of coal-non coal intercepts.

Mandatory casing of all exploratory holes will adversely affect future drilling programs in the following ways:

1. Metal casing affects a density log by acting as a shield, thus dampening the photon signals needed for accurate determination of hole wall rock type. In addition, the thicker metal walls encountered at casing connections create spikes on a density log that completely mask the intervals adjacent to these areas over a vertical distance of up to three feet. Any coal beds or contaminating shale partings that occur in these horizons would be unrecorded. These types of lithologies must be accurately defined due to the vital role they play in coal quality determination and subsequent mine planning. A six inch black shale parting, unnoticed by a geologist during drilling, and unrecorded in a cased hole due to a log spike, could render a coal bed unmarketable, possibly even after it has been exposed by mining. The consequences of such a scenario to a mining company would be financially devastating.
2. All mineral exploration will become more costly due to an increase in materials and time needed to complete each drill hole. At present, each hole is drilled, logged with a geophysical probe, and subsequently sealed. Under the proposed rule the hole would have to be drilled, logged by non-radioactive probes, cased and logged by a density tool. The casing would then have to be pulled prior to sealing the hole. The cost increase due to this drilling sequence would be

DS1010
Add Bruce Carrico, 39655
Steven McGuire, 113055

Acknowledged by card

JUL 28 1985

pd

Secretary of the Commission
U.S. Nuclear Regulatory Commission
July 25, 1985
Page 2

drastic when drilling the shallow, closely-spaced exploration holes that are mandatory to accurately define the parameters of an economically mineable mineral deposit. The time consuming nature of this procedure would increase costs of this type of drilling by at least 100% to 200%.

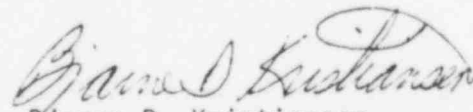
The increased costs to the producer and mineral commodity consumer would be many times higher than costs incurred due to infrequent radionuclide source rupture and subsequent cleanup. Therefore we urge the Nuclear Regulatory Commission to reconsider enacting Rule §39.51 until an accurate financial impact can be determined for the coal and other mineral industries involved. Alternate means of prevention of aquifer contamination by ruptured radioactive sources can be implemented and enforced by regulation. It is suggested that regulations governing logging operator education and experience can be enhanced to supplement existing rules. Potential risks could also be minimized by further defining procedures for recovery of "lost" sources. Knowledge of efficient source recovery technology should be mandated by rules and regulations that can be added to Part 39. In addition, methods for containing sources within tools can be improved and standardized to further minimize accidental leakage. We believe that a regulated increase in operator education and experience levels for logging and recovery techniques combined with more stringent source containment requirements would have a proportionately lesser financial impact upon the mineral industries and would be less subject to regulatory violations than would implementation of Rule §39.51.

Sincerely,

KIEWIT MINING & ENGINEERING CO.



James D. Eman
Exploration Manager



Bjarne D. Kristiansen
Radiation Protection Officer,
Project Geologist-Decker Coal
Company

JDE/BDK/ilf