



DOCKET NUMBER PR-19,20,21 et al (86)
PROPOSED RULE (50 FR 13797)

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DOCKETED
USNRC

August 8, 1985

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Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
ATTENTION: Docketing & Service Branch

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

SUBJECT: Proposed Rules 10 CFR Part 39 - Licenses & Radiation
Safety Requirements for Well Logging Operations.
Federal Register FR 13803, April 8, 1985

Dear Sir:

Colowyo Coal Company (Colowyo) is an active mining company engaged in surface coal mining in northwest Colorado. Colowyo is owned and operated by a 50/50 general partnership between the M.A. Hanna Company and W.R. Grace & Co. In addition to the Colowyo mine, the partnership has other coal interests in both the eastern and western portions of the United States. The following comments are mostly in regards to the severe economic impact that the proposed rule 39.51 of Subpart C would create in regards to coal exploration, by requiring that surface casing be installed prior to using a sealed source in a well.

All coal reserve estimates for Colowyo and other coal interests are based on geophysical well logs. In coal logging operations, both electric logs and radioactive logs are utilized to define coal deposits. Radioactive sources are utilized to produce a gamma-gamma density log, and more recently a focused density log has been developed and utilized throughout the industry. To date, the focused density tool has proved to be the most valuable and cost effective mechanism for defining both quantity and quality of a coal deposit. We are very concerned that this valuable data would be too costly to obtain if casing is required, thus significantly reducing our ability to evaluate coal reserves, while providing very minor environmental protection.

In addition, naturally occurring gamma rays are detected and measured through a sonde and are also used in delineation of coal reserves and associated rock types. Since coal lithologic units contain measurable levels of radiation, the question can be raised as to what extent the naturally occurring radiation in coal measures compares to that utilized to induce radiation into the formation with the gamma-gamma density tool.

The proposed regulations appear to be directed mostly towards the oil and gas industry. The wells in the oil and gas industry are designed for long-term use and are generally cased to protect the integrity of the hole. In addition, oil and gas wells are deeper with greater potential of intercepting aquifers. The potential for contamination through aquifer mixing and contamination from oil entering an aquifer has been a problem for several years and is generally

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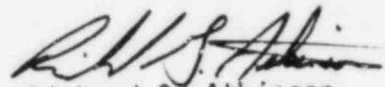
dealt with by casing the hole. It is our feeling that the impact of the proposed rules on the oil and gas industry is not as severe in most cases since NRC is proposing a regulation that is already common practice in that industry. On the other hand, coal exploration holes are temporary and are in general extremely shallow compared to oil and gas wells. The cost of installing steel casing in such a short term operation would be unbearable for coal operators. In addition, the installation of steel casing would present both a safety hazard during actual mining of the deposit and a loss of reserves around the area the cased drill hole penetrates.

The proposed rule could potentially be in conflict with requirements of the Office of Surface Mining and the Bureau of Land Management. There are specific provisions that require coal lessees to provide data on coal reserves. A specific minimum number of holes for a given reserve area is usually required by federal agencies to support reserve estimates. Coal lessees, and especially small operators, may not be able to meet the requirements with the additional cost of installation of steel casing at each drill hole location.

Thank you for the opportunity to comment on the proposed rules. We hope that the NRC will utilize our comments and comments submitted by other coal and mineral interests to arrive at a workable solution. Rule 39.51, Subpart C is not workable in its proposed form.

Sincerely,

COLOWYO COAL COMPANY



Richard G. Atkinson
Chief Reclamation Engineer

RGA/ym1

cc: L.B. Gray
Central Files



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

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The Colorado

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OFFICE OF SECRETARY
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Secretary of the Commission
U.S. Nuclear Regulatory Commission
Attn: Docketing and Service Branch
Washington, D.C. 20555

RE: PROPOSED RULES. 10 CFR PART 39 - LICENSES AND
RADIATION SAFETY REQUIREMENTS FOR WELL-LOGGING
OPERATIONS - 50 FR 13803 (April 8, 1985)

Dear Sir:

The Colorado Mining Association (CMA), established in 1876 and incorporated in 1897, is a trade association whose membership, numbering 150 companies and over 1800 individuals, is composed of both small and large enterprises engaged in the exploration for, production and refining of, metals, coal, oil shale and industrial minerals; firms that manufacture and distribute mining and mineral processing equipment and supplies; and other institutions serving the mineral industry.

It has recently been brought to our attention that the Nuclear Regulatory Commission (NRC) has proposed new regulations governing the use of sealed radioactive sources. One of the proposed regulations (39.51) prohibits logging holes with radioactive sources unless surface casing is in place through all fresh water aquifers. If adopted, this regulation would restrict the mineral industry from running gamma-gamma density or neutron logs on many prospects unless the boreholes were cased.

We feel the NRC directed most of its attention toward the effects on oil and gas exploration. Since oil wells typically have surface casing in place when logged, the proposed regulations would have little effect on the logging procedures presently used. Few holes, however, have surface casing in place when geophysical logs are run in mineral exploration holes. Setting casing or leaving drill rods in place for logging would cause a significant increase in exploration costs and, more importantly, decrease the quality of the radioactive logs.

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William Bentz 9604 MB

Secretary of the Commission
August 6, 1985
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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. 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, parting, 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.

This stipulation (10 CFR 39.51) would have a number of severe consequences:

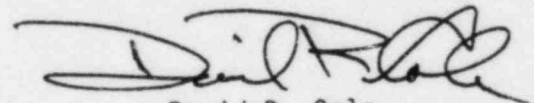
- o No more high-resolution open-hole density logs
- o No more electric logging of uncased coal measures in gas wells
- o No more geophysical logging of lower-cost air rotary holes

It appears to us that no consideration was given to the costs and consequences to the coal industry of the proposed regulations.

We appreciate this opportunity to express our views.

Sincerely yours,

COLORADO MINING ASSOCIATION



David R. Cole
President

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