



**ROCKY MOUNTAIN
ENERGY**

DOCKET NUMBER

PROPOSED RULE

PR-19, 20, 21 et al (77)
(50 FR 13797)

July 29, 1985

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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

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

Attention: Docketing and Service Branch

Dear Mr. Secretary:

Re: NRC's Proposed Rule 10 CFR 39

Rocky Mountain Energy (RME), the mining subsidiary of Union Pacific Corporation, appreciates the opportunity to comment on NRC's proposed rulemaking as announced in the Federal Register (FR 50, 13797-13809). The proposed rulemaking would directly affect our mineral exploration programs. Part 39.51 requires that drill holes which intercept fresh water aquifers be cased before logging with a licensed source. The purpose of this regulation appears to be to protect aquifers from being contaminated by nuclear sources which could be lost. Part 39.51 would be a severe and unnecessary burden on mineral exploration programs.

RME strongly objects to NRC's proposal to impose a regulation that will virtually prohibit the minerals industry from conducting exploration programs. The proposed well casing rule appears to be an excessive measure to reduce a slight chance of accident. The benefits of Part 39.51 are unclear and do not justify the burden imposed on the industry. There is no clear benefit from casing all holes which intercept fresh water aquifers, but there are clear financial and environmental liabilities associated with the proposal.

There is no guarantee that casing all exploration drill holes would reduce the incident rate. According to the Federal Register announcement, there were two incidents which included the rupture of licensed materials in drill holes during a one-year period. During the same period, 50,000 holes were logged. Casing each hole may or may not have lowered the

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incident rate. There was no mention of whether the two ruptured sources were in an aquifer. Sources can be lodged in a cased hole. Additional training in tool recovery to reduce the chances of rupture appears to be a more promising method of reducing tool loss or rupture.

RME suggests that additional training in tool handling and recovery methods would be a more reasonable approach than casing wells. Each operator of a probe or recovery operation needs to be aware of the latest developments in his field. The proposed additional training could be added to the licensing requirements and periodically updated. Recovery training would minimize the potential for tools becoming lost or ruptured.

The casing rule has several liabilities. Sealing drill holes is more difficult with casing in place. While the inside of the casing can be readily sealed, the outside of the casing requires more sophisticated equipment. The potential commingling of aquifers through conduits outside of casings could become an issue. Not all casing can be retrieved after logging and when PVC casing is used instead of steel, abandonment of the casing is probable. Large exploration programs may include drilling and logging more than 1,500 drill holes. The potential for leaving a large number of casings in wells should be carefully studied before Part 39.51 is promulgated.

The effectiveness of well logging is reduced by surface casing. The purpose of exploration is to identify subsurface features including stratigraphy, structure, density, and hydrology. Specific logging functions which could be reduced or impossible with casing include high resolution gamma-gamma logs, resistivity, spontaneous potential, and hole deviation. Thus, the proposed rule would make exploration more costly and, at the same time, less effective.

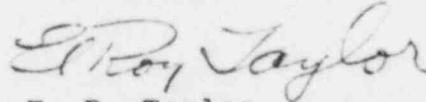
The cost of obtaining an unknown safety benefit would be extremely high. Setting and retrieving casing is very expensive and, in our view, unnecessary. As mentioned earlier, many casings would be unretrievable. Handling long strings of casing would require the use of larger drill rigs than are commonly used in mineral exploration. Some holes may not need to be cased, but experience suggests that about 70 percent of our holes penetrate an aquifer. We estimate that Part 39.51 could triple the cost of exploration programs. The proposed rule

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would at least reduce exploration drilling and may eliminate many exploration programs entirely. Reducing mineral exploration is not in the nation's best interest.

RME urges the NRC to not require the casing of mineral exploration wells. We also offer our assistance in preparing an alternative rule to further reduce the already low incident rate. If EME can be of any assistance, please don't hesitate to contact us.

Sincerely,

A handwritten signature in cursive script, reading "E. R. Taylor".

E. R. Taylor
Project Environmental
Specialist