

DOCKET NUMBER

PROPOSED RULE

PR-19,20,21 et al (81)
(50 FR 13797)



KERR-McGEE CORPORATION

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ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

July 30, 1985

EXPRESS MAIL

RETURN RECEIPT REQUESTED

DOCKETED
USNRC

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

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ATTN: Docketing and Service Branch

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

RE: NRC Proposed Rule (10 CFR 39) on Well Logging Requirements
(50 FR 13797, April 8, 1985)

Dear Sir:

Kerr-McGee Corporation appreciates the opportunity to comment on the NRC proposed rule concerning "Licenses and Radiation Safety Requirements for Well Logging Operations" published in the Federal Register (Vol. 50, No. 67) April 8, 1985.

Kerr-McGee Corporation is an integrated energy and natural resource development firm with interests involving oil and gas, coal, uranium, minerals and chemicals. In almost every element of these businesses, geophysical logging of wells plays an important role in ensuring reserve assessment and maximum recovery of the resources with minimum impact upon the natural environment.

General Comments

Kerr-McGee endorses NRC's consolidation of the existing rules contained in 10 CFR Parts 19, 20, 21, 30, 39, 40, 51, 70, 150, and proposed additions related to logging sources into a single Part 39 comprehensive rule. However, we believe many of the rules proposed were more specifically written for oil and gas logging operations where multi-curie sources are used at much greater depths rather than for non-oil and gas mineral logging. The broad application to "all" geophysical evaluation programs requiring casing in all wells which may be logged imposes additional costs of such magnitude that many such programs in mineral applications will no longer be feasible. The long-term cost implications to the mineral industries are substantial in relation to any benefits derived from such requirements.

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Acknowledged by card

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Kerr-McGee, therefore, recommends the NRC consider separate requirements for mineral logging activities since lower energy sources are commonly used at much shallower depths in relation to oil and gas activities. Specifically, an exemption to the requirement of installing surface casings is recommended for mineral logging activities.

Specific Comments

Subpart C, 39.51: Use of a Sealed Source in a Well Without Surface Casing

This section specifically requires the following: "The licensee may not use a sealed source in a well without a surface casing designed to protect fresh water aquifer zones, unless procedures for protecting those zones are specifically approved by the Commission."

The NRC cites, as the basis for the need for the casing requirement, two ruptures of sources during logging tool recovery operations for the period between August 1982 to September 1983 with incurred cleanup costs of over \$1.5 million. However, particulars of the incidents were not provided including whether the holes were cased, source type, type of drilling and depth at which loss occurred. In view of the over 50,000 logging operations per year, this accident probability is already small, indicating that the regulations in place now are sufficient and casing related problems are minimal.

In the case of mineral exploration, logging practices are significantly different than that for oil and gas applications. In oil and gas well logging the radioactive sources are 10 to 20 times the activity of sources used for mineral zone logging. Furthermore, the oil and gas wells are logged to much greater depths than other wells. NRC must properly recognize these basic differences and establish separate requirements based on these factors. For example, energy sources less than 20 millicuries, typically used in mineral applications, should be authorized by NRC for use in logging uncased wells.

NRC projects that the costs of compliance with the in place regulations is about \$7,400 per year for the average well logging licensee, and that the new requirements proposed would only be around \$2,000 per year. The Commission concludes that this economic impact is small compared to the added safety. However, the Commission obviously has not taken into account the expense of setting casing in their analysis.

Kerr-McGee estimates that this economic burden will significantly increase annual costs for coal logging activity alone at our current levels of operation and exploration. The setting of casings increases the cost of coal resource drilling by factors of two to four times. In fact, overall company logging costs will increase dramatically when there is a resurgence of other mineral development activities such as uranium exploration and associated definition of mineralized zones for mine plan development.

Also of importance, the presence of the casing interferes with the data resolution from the logging. This casing requirement would largely eliminate the widespread use of air rotary drilling techniques which have permitted development of large data bases for coal mining along with practical use of lower activity sources.

Subpart B, 39.13(f)(2): Specific Licenses for Well Logging Operations

The proposed rule specifies a license condition which requires that a description of any leak test kit used be provided in the application. There are a number of such leak test kits suitable for this use. Kerr-McGee recommends that 39.13(f)(2) be modified to recognize there are multiple suppliers of such kits and that the licensee has the flexibility of using different kits for leak testing. The modification recommended is: (2) If an applicant wants to use a leak test kit, it shall identify the manufacturers and the model numbers of the kits that will be used.

Summary

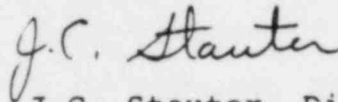
Kerr-McGee recommends that mineral logging be exempted from the casing requirement. This will maintain costs of exploration at a reasonable level, permit use of lower activity sources, and not increase to any measurable degree the potential for environmental impact over the already very low probability. The strict monitoring and maintenance requirements for logging sources assures use of equipment that is in the best of condition.

Alternatively, NRC may provide in the regulations for: (1) an exemption from this requirement for specified isotopes and small curie content sources; or (2) provide that NRC may grant a logging license which exempts a licensee from surface casing requirements on a license-specific basis depending upon the specific scope of licensed activities and size of source to be used.

Secretary of the Commission
July 30, 1985
Page Four

We appreciate very much your consideration of these comments. Kerr-McGee also endorses those comments provided separately by the American Mining Congress and the National Coal Association.

Sincerely,

A handwritten signature in cursive script that reads "J.C. Stauter".

J.C. Stauter, Director
Nuclear Licensing & Regulation

JCS/br