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(50 FR 13797)

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Department of Energy

Washington, DC 20585

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OFFICE OF SECRETARY
FOR ENVIRONMENT & SAFETY
WASHINGTON

Honorable Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chilk:

This letter responds to the Proposed Rule and request for comment issued under 10 CFR Parts 19, 20, 21, 30, 39, 40, 51, 70, 71 and 150, "Licenses and Radiation Safety Requirements for Well-Logging Operations." The Department of Energy (DOE) feels the provision of comprehensive and consistent regulations, uniform safety equipment and safety requirements designed to reduce the risk of accidents is an important aspect of environmental protection. However, as the enclosed staff comments indicate, it is also important that these regulations and requirements be clearly defined and can be applied by the appropriate industries in a practical and cost-effective manner.

Further, DOE applauds the Nuclear Regulatory Commission (NRC) decision to extend the comment period of this rule to allow concerned coal and mineral mining companies an opportunity to respond. If NRC staff would like more detail or discussion of any of the enclosed comments, please call Ted Williams of my staff directly (252-2061).

Sincerely,

William A. Vaughan
William A. Vaughan
Assistant Secretary

Environment, Safety, and Health

Enclosure

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Acknowledged by card

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Comments on Proposed Rule, Licenses and Radiation Safety Requirements for Well Logging Operations 50 FR 13797 April 1985.

Summary Comments

1. This proposed rule should be re-examined following completion of ongoing NRC studies of de-minimus radiation exposure levels.
2. The degree of perscriptiveness of the various parts of the proposed rule should be examined in terms of priorities as some important parts need additional detail while for others it can be reduced.
3. With respect to the use of a sealed source in mineral assays and mining operations without the use of surface casing, these operations could be tied to the type and curie content of the source, and the strata through which the borehole passes as revealed by drilling or core samples.
4. Testing requirements are not clearly defined and each specific test needs to be integrated in an overall test program.

Detailed Comments

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| Page 13797 | o | Column 2 line 36--typographical error, "of gas tracer" should read "or gas tracer." |
| Page 13799 | o | Columns 1 & 2 to line 15--argument for not licensing well owners is not convincing. It would not be unreasonable for an owner with numerous wells and an exploratory program to want to perform his own well logging. |
| | o | Column 2 line 28--typographical error, "10 milliroentgns" should read "100 milli-roentgns." |
| Page 13800 | o | Column 1 line 10 (2)--basis for requiring double encapsulation not given. What has operating experience demonstrated? It is not clear if it is intended that both capsules shall be pressure tested. |
| | o | Column 1 line 18--typographical error "change" should read "chance." |

- o Column 3, J--Use of Sealed Source in a Well Without Surface Casing--this paragraph tends to conflict with NRC's proposed approach, paragraph 4 page 13798. Paragraph 4 does not prohibit use of a sealed source in an uncased well and indicates that safety requirements will be specified. Paragraph J specifically prohibits the use of a sealed source in an encased well without NRC's specific approval.

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- o Column 1 paragraph K Training line 25--minimum of three months on-the-job training should be more specific and also reference a minimum of actual well logging operations. Also the situation where a supervisor, or assistant, has been unemployed in well logging for a number of months and may need retraining, has not been covered.
- o Column 1, line 49--typographical error, "assistants be retained" should read "assistants be retrained."

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- o Column 2--Section 39.41(a)(1), Doubly encapsulated construction is not clearly defined, nor is pressure testing to 24,000 pounds per square inch absolute without leakage. Is the test pressure to be applied externally or internally, as the design requirements will be different for each case. Also, what are the ambient conditions at which the test will be conducted? Standard temperature or elevated temperature?
- o (i) Temperature--the thermal shock test should be examined in relation to the pressure test and be more clearly defined. For example, capsule shall be withdrawn from a furnace with neutral atmosphere at 600°C and plunged into an agitated bath of water, or oil, maintained at 20°C. Consideration should also be given to the capsule materials as quenching from 600°C will, in some cases, affect their structural properties. Also, 600°C will destroy many non-metallic materials used for gaskets and "O" rings, while non-ferrous metals used for seals will anneal and creep when subjected to 600°C temperature and quenching to 20°C allowing leakage to occur.

- o (ii) Impact Test--(IV) Puncture test, there is an apparent error in the impact loadings, as the mass to cross sectional area ratio for the 5.0 Kg hammer is 1.019 Kg/Cm^2 and for the puncture hammer and pin 0.014 Kg/Cm^2 which 72.78 times less than the impact hammer. This is unlikely to have any penetrative effect.
- o (iii) Vibration Test--this test is not clearly defined. Does it mean cyclic testing from 25Hz to 500Hz for 30 minutes? If so, the cyclic rate of change should be given. If not, the test time at each selected frequency should be given. The method of mounting the test specimen is not given therefore mounting devices could be selected which make the test ineffective.

The above compliance tests use a mixture of english and metric units of measurement. It is recommended that both english and metric units are used to avoid confusion. Also each test should form part of an integrated test program which contains detailed test procedures and pass/failure criteria.

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- o Section 39.43 Inspection, maintenance and opening of source holder-(b)--this is basically a repeat of the daily pre-operation inspection. However, because of the high costs involved in recovering a well logging device from a well, it would appear that non-destructive testing should be undertaken to identify hidden defects that would not be observed during visual inspections.

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- o Column 1 line 4 (i)--typographical error "The inspection of maintenance of source holders" should read "The inspection and maintenance of source holders".

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- o Column 1 line 12 (c) and (1)--abandonment procedures for irretrievable sources. Wording and intent of these two paragraphs tends to conflict with page 13898 col. 3, "Agreement with Well Owner or Operator" and subsequent page 13799 paragraph 1, where well owner or operator controls the well and the licensee may not have the legal authority or resources to recover the tool and its sealed source. The joint responsibilities of the licensee and the well owner or operator should be clearly defined.

United States Senate

WASHINGTON, DC 20510

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October 8, 1985

OFFICE OF LEGISLATION
DOCKETING & SERVICE
BRANCH

Mr. William Clements
Chief, Docketing & Services Branch
Office of the Secretariat
United States Nuclear Regulatory Commission
1717 H Street, N. W.
Washington, D. C. 20555

Dear Mr. Clements,

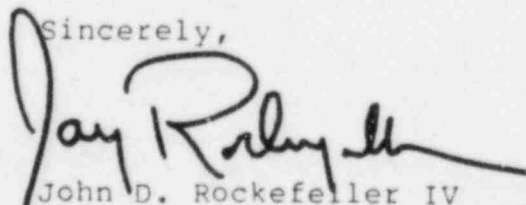
I am writing to express my concern over NRC rules designated as Title 10 Code of Federal Regulations, Part 39, on Licenses and Radiation Safety Requirements for Well-Logging Operations.

Specifically, I would like to register my objection to section 39.51 which prohibits running a gamma-density log in any drill test which is not cased from top to bottom. This regulation has severe consequences for the coal industry.

Steve McGuire of the NRC staff has indicated to my staff that researchers who wrote these regulations did not adequately consider the costs and consequences of these regulations to the coal industry. Mr. McGuire further indicated that due to the large number of negative comments to these regulations significant and substantive changes would probably be forthcoming.

I urge you, on behalf of our domestic coal industry, to revise these regulations.

Sincerely,


John D. Rockefeller IV

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