

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU

630 SOUTH BERETANIA STREET

HONOLULU, HAWAII 96843

DOCKET NUMBER

PROPOSED RULE

(50FR 13797)

PR-19,20,21 et al. (59)



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July 9, 1985
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KAZU HAYASHIDA
Manager and Chief Engineer

Secretary of the Commission
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20553

Dear Sir:

Subject: Comments on Proposed Rule Relating to Well Logging
Operation

Thank you for the opportunity to comment on the proposed rule as it affects the well logging operations of the Board of Water Supply, City and County of Honolulu.

We feel the general purpose and intent of the rule are good and necessary to assure safety of well logging operations and the general public. The problems cited with sealed sources are probably confined to logging companies that have untrained or high turnover of personnel. We have not, nor do we expect to encounter the problems of source rupture you have cited.

We have the following specific comments:

39.15 Agreement With Well Owner or Operator

Requiring a well owner or operator to enter into a written agreement before the well can be logged would interfere with our well data gathering program. As a government agency charged with data gathering, we have legal access to wells for data gathering purposes and should be responsible for fishing for stuck tools. We feel private well owners will refuse us access if they are held responsible for engaging and paying for a company to fish for lost tools. We already have experience and equipment for fishing tools.

39.35 (c) Leak Testing of Sealed Sources

The proposed requirements for testing sealed sources every six months appears unnecessary for sealed solid form pellets unlike gaseous or liquid states that are highly mobile.

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Because we generally do not log mud-filled holes, sinker bars are not required for water filled wells. Water well logging as practiced by the Board of Water Supply is performed safely and routinely.

39.41 (a) Design and Performance Criteria for Sealed Sources

We believe the potential to contaminate aquifers from an irretrievably lost neutron source that contains a sealed, solid form Americium 241-Beryllium pellet is much less than either the gaseous or liquid forms. Solid form sealed sources should be specified as exempt from this provision. The contamination potential would be further reduced by the cement plug and whipstock required for abandonment.

The criteria (1) through (4) appears to apply to the more fragile gaseous and liquid sources other than to insoluble solid form sources which are doubly encapsulated in stainless steel.

39.51 Use of Sealed Source in a Well Without Surface Casing

We do not believe sealed sources should be banned from logging of water wells that do not have surface casing.

Water wells in Hawaii are cased only to minimal depths, seldom exceeding 50 feet below the water table. Because the basaltic formations comprising the volcanic aquifers are fresh and structurally competent, water wells in Hawaii are normally completed without a fully cased bore. This method of construction has more than a century of proven experience in Hawaii. Not only is cost reduced, well efficiency is maximized because drawdown is minimized. The uncased portion may extend more than a thousand feet in monitor wells penetrating the fresh water lens to salt water.

In our experience with logging cased water wells where the annulus is sealed with cement grout for sanitary protection, the well logs yield inferior data on formation properties and potential water yield. For proper well design where setting the casing is critical to exclude or include top water, the neutron log is the most capable tool in our logging inventory. It is used almost to the exclusion of

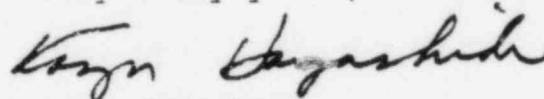
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the standard potential-resistivity logs. Preventing us from use of the neutron logging tool in uncased wells would deprive us of our most useful downhole geophysical tool for acquisition of formation data and well design.

Unlike boreholes for minerals exploration that are usually only a few inches in diameter, our water well diameters normally exceed one-foot which prevents tool jamming by loose, small rocks. Boreholes normally do not have to meet specifications for plumbness and alignment in contrast to water wells. In our 24 years of well logging in Hawaii, we never had a logging tool stuck in the uncased portion of a well.

We request your favorable consideration of our position and consider the effects of the proposed rule on our well logging operations which are vital to proper well design and to understanding aquifers in Hawaii.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Kazu Hayashida', written in a cursive style.

KAZU HAYASHIDA
Manager and Chief Engineer