

United States Nuclear Regulatory Commission
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NRC PROPOSES CHANGES TO REGULATIONS ON WELL LOGGING

The Nuclear Regulatory Commission is proposing to amend its regulations governing the use of radioactive materials in well logging, an oil and gas exploration technique.

The proposed revisions reflect changes in well logging technology that have occurred since the NRC issued its existing well-logging regulations in 1987. Other changes would improve and clarify the regulations to reduce confusion. The revisions are intended to reduce the burden on well logging licensees without adversely affecting public health and safety.

Well logging is used in oil and gas exploration to help predict the commercial viability of new or existing wells. It traditionally involves lowering a well logging tool, including a sealed source of radioactive material (usually Americium-241 or Cesium-137) and an associated radiation detector, into a well on a wireline.

Information collected by a detector is sent to the surface through the wireline and plotted on a chart as the logging tool is slowly raised from the bottom of the well. The data can include properties of the underground formation, such as the type of rock, porosity, hydrocarbon content and density. Licensed radioactive materials are used for similar purposes in coal and other mineral exploration.

When the current NRC regulations were issued, the well logging process required licensees to stop drilling the hole for the well while parts of the drilling pieces were removed and the logging tool was lowered down the well. Improved technology now in use allows licensees to lower a logging tool down a well at the same time that the hole for the well is being drilled.

The new technology is commonly referred to as "logging while drilling." It requires licensees to use an extra, relatively small radioactive source in addition to the larger radioactive sources currently used. The smaller source is used to calibrate the well logging tool and help make sure it is working properly during the "logging while drilling" operation. This new technology not only permits improved evaluation of geologic formations, but also can reduce drilling costs and improve safety.

NRC's existing well logging regulations, based on the use of only larger radioactive sources, include provisions that are unnecessary and potentially burdensome for the additional small sources. The proposed revisions would eliminate such unnecessary requirements.

Details of these proposed changes and other changes designed to improve and clarify well logging requirements are discussed in a Federal Register notice to be issued shortly. Interested persons are invited to submit written comments within 75 days of the Federal

Register notice to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C.
20555-0001, Attention: Rulemakings and Adjudications Staff.

Comments may also be submitted electronically via the NRC's interactive rulemaking
web site at <http://ruleforum.llnl.gov>.

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