NRC NEWS

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NRC REVISES WELL LOGGING REGULATIONS

The Nuclear Regulatory Commission has amended its regulations governing the use of radioactive materials in well logging, an oil and gas exploration technique. The revisions reflect changes in well logging technology that have occurred since the NRC issued its original well logging regulations in 1987, and eliminate provisions that are unnecessary and burdensome without adversely affecting public health and safety. Other changes improve and clarify the regulations to reduce confusion.

Well logging is a technique used in 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 1987 regulations were issued, licensees were required 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 original well logging regulations, based on the use of only larger radioactive sources, included provisions that were unnecessary and potentially burdensome for the additional small sources. These revisions eliminate such unnecessary requirements.

The NRC received five comments on the proposed rule, which was published in the Federal Register on April 19 of last year. The final rule will become effective on May 17, 30 days after publication in the Federal Register yesterday.

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