

author's note), is his book about hydraulic and geotechnical engineering.

This book, written in three parts, is about the Mississippi River as it tries to change course, the attempt to control a volcanic eruption in Iceland, and the work of geotechnical engineers to contain landslides in California.

*Who is this spellbinding author, and what is the name of this particular book?*

3. A standard nuclear density meter is widely used by field technicians to obtain the dry density and moisture content of placed soils during earth-moving operations. The nuclear gauge uses two types of radiation measurements, one to measure the moisture content and one to measure the wet density. Dry density is then calculated using these two values.

Most of the time the test is performed at the surface, occasionally in a shallow trench. However, there is a modification to the standard test, performed in a borehole lined with a metal pipe. This test is used to obtain soil data at the desired depth. However, because of the presence of the metal and the depth of the test, one of the measurement techniques cannot be used, and only one of the two values usually obtained from a nuclear density test is obtained.

*Using your nuclear knowledge from when you took the nuclear gauge test (decades ago for some of you!), which value can we obtain, wet density or moisture content?*

4. Terzaghi question: In June 1948, in the foreword of the inaugural issue of this geotechnically oriented magazine, Terzaghi wrote:

*During the past decade, theory and the techniques of sampling and testing have advanced far beyond immediate practical needs, whereas our knowledge of the difference between the behaviour of soils in the field and in the laboratory has lagged behind. Therefore, at the present time, a well-documented case history should be given as much weight as ten ingenious theories...."*

*What is the name of this magazine?*

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Answers: 1. The sticky limit, which measures the moisture content at which the soil stops sticking to metal, is still occasionally used, while the cohesion limit measures the moisture content at which soil crumbs just stick together. 2. The Control of Nature by John McPhee. 3. The wet density can be measured in a borehole. 4. *Geotechnique*.

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