UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT WASHINGTON, D.C. 20240

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In Reply Refer To: 3100 (310) P

EMS TRANSMISSION 05/28/2008 Instruction Memorandum No. 2008-129

Expires: 09/30/2009

To: All Field Officials

From: Assistant Director, Minerals and Realty Management

Subject: Petroleum Engineering Technician (PET) Mathematics Training Requirements

Program Area: Oil and Gas Operations

Purpose: This Instruction Memorandum (IM) establishes additional prerequisite training standards for new PETs who are required to obtain oil and gas inspection certification training. It also supplements the PET Major Job Duty requirement for mathematical competency at the high school algebra level as outlined in WO IM 2004-103.

Policy/Action: All newly hired PETs must first complete a formal mathematics course, preferably at a local community college before attending the 3100-01 Oil and Gas Compliance Certification School (Certification School) modules. Formal course work is necessary for PETs to refresh their knowledge and skill levels; perform basic mathematical calculations; successfully complete training modules; and competently perform job duties. An exception to this training requirement is that new PETs who have graduated from college, technical or vocational school, within 2 years of being hired by the BLM and have successfully passed mathematical course work at a comparable or higher level than high school algebra, are exempt. The exemption would only be granted upon proof of course completion.

Prior to enrollment in a local class, field offices (FO) must use the educational training options and specific mathematical competency objectives outlined below in deciding upon the appropriate mathematics course.

Formal Educational Options include, in order of preference:

- 1. Enrollment in a local community college course (FO to pay enrollment costs).
- 2. Enrollment in a college on-line mathematics course (FO to pay enrollment costs).
- 3. Proctored testing of Mathematic Concepts and Applications by the National Training Center (NTC) FOs would pay travel and per diem expenses for administering proctored testing. This option will only be used as a last resort when local community college and on-line course work are not possible.

Mathematical Competency Objectives

New PETs must enroll in either Mathematics Concepts or Mathematical Applications; General Mathematics; or pre-algebra courses that will enable the student to:

- Perform basic math operations using whole numbers, fractions, negative numbers, and decimals.
- Perform order of operations when working with whole numbers, fractions, decimals, integers, and rational numbers in mathematical equations and formulas.
- Estimate and round numbers.
- Decipher arithmetic/algebraic expressions involving exponents and square roots.
- Convert decimals, fractions, percentages, and different units of measurement.
- Decipher and perform mathematical calculations using problem solving processes.
- Determine reasonableness of a mathematical solution after completing a problem solving process.
- Select and use appropriate formulas in solving practical applications.
- Convert and solve problems using units of measurement and geometric figures.

Timeframes: All newly hired PETs who are in job orientation or are not enrolled in Certification School must be able to document successful completion of a mathematics course prior to attending Module 1 of the Certification School.

Budget Impact: There will be a minor budget impact to the FOs because of local community college enrollment costs.

Background: In 2004, PET job descriptions began to address additional mathematical skills. After 5 years of Certification School training, approximately a third of each class does not pass Module 1 because of the students' lack of basic mathematical skills. The prerequisite assignments, administered by the NTC, are given approximately 4 to 5 months prior to the start of the first module. Receiving these assignments should allow students to function in the classroom, but some still require additional training in basic mathematical concepts before understanding fully oil and gas mathematical applications.

Manual/Handbook Sections Affected: The H-3160-6 National Certification Handbook for Oil and Gas Inspection Personnel will be amended to incorporate the additional training requirement.

Coordination: This guidance was coordinated with the NTC, Washington Office Division of Fluid Minerals (WO-310), State Office Management personnel and Field Managers.

Contact: If you have questions or concerns regarding this additional training requirement, please contact me at 202-208-4201, or your staff may contact Tim Spisak, (WO-310) at 202-452-5061. Training requirements and past course work validation will be coordinated by the NTC. Please contact Patty Ramstetter at 602-906-5583 for training assistance or specific questions regarding regional course enrollment.

Signed by: Michael D. Nedd Assistant Director Minerals and Realty Management Authenticated by: Robert M. Williams Division of IRM Govenance, WO-560