

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Part 870

RIN 1029-AB78

Coal Moisture

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.
ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSM) is amending its regulations governing how the excess moisture allowance is determined for reclamation fee purposes. This action defines terms and phrases related to the collection and testing of coal samples used to determine the inherent and total moisture of coal; identifies acceptable American Society for Testing and Materials (ASTM) standard sampling and testing methods for high and low-rank coals; prescribes frequencies for collecting and testing coal samples; and provides the coal industry with formulas for use in calculating an excess moisture tonnage allowance for the purpose of reducing the weight of coal subject to the abandoned mine land reclamation fee.

The regulatory revision clarifies and simplifies technical guidance for all users, and provides the coal industry with standard criteria for calculating an excess moisture allowance on all coals subject to reclamation fee payment. The intended effect of this revision is to enhance compliance with the provisions of section 402 of the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). The prescribed criteria will ensure that all tonnage reductions for excess moisture are taken on comparable bases.

EFFECTIVE DATE: This regulation is effective October 1, 1997. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 1, 1997.

FOR FURTHER INFORMATION CONTACT: Dr. Kewal Kohli, Office of Surface Mining Reclamation and Enforcement, 3 Parkway Center, Pittsburgh, PA 15220; telephone (412) 937-2175.

SUPPLEMENTARY INFORMATION:

I. Background

II. Discussion of Final Rule and Responses to Comments

A. Section 870.5—Definitions.

B. Section 870.18—General rules for calculating excess moisture.

C. Section 870.19—How to calculate excess moisture in HIGH-rank coals.

D. Section 870.20—How to calculate excess moisture in LOW-rank coals.

III. Procedural Matters

I. Background

Section 402(a) of the SMCRA requires all operators of coal mining operations subject to its provisions to pay a reclamation fee on each ton of coal produced. In December 1977, OSM first promulgated regulations to implement this provision (42 FR 62714, December 13, 1977). Briefly, the regulations require that the Abandoned Mine Land (AML) fees must be paid on the actual gross weight of the coal, at the time of the first transaction (sale, transfer of ownership, or use) involving the coal. This regulation has been in effect basically unchanged since 1977. In 1982, OSM revised the regulatory language to clarify the point in time of fee determination and to stress that the actual gross weight of the coal must be used for fee calculation. At that time OSM also specifically noted that no fees were owed on impurities physically removed before the sale, transfer of ownership, or use. In 1988, OSM again revised this regulation to allow an operator who mined coal after July 1, 1988, to elect to take an allowance for moisture contained in the coal at the time of sale that is determined to be in excess of the inherent, or natural bed, moisture in the coal.

Initially, OSM adopted the excess moisture allowance to address an inconsistency in the methods of determining coal weight under various Federal taxation requirements. At the time OSM proposed to amend its regulation to allow a deduction for excess moisture, the ASTM Committee on Coal and Coke, whose membership included representatives of the Internal Revenue Service (IRS) and OSM, was conducting a study to develop and/or confirm precision statements for the ASTM standard test method used to estimate the bed moisture in high-rank coals, ASTM D1412-85, as it applied to all coals. In a letter of November 18, 1987, the IRS submitted the following comment in response to the OSM proposal, "the results of the ASTM or a similar study should be received before one test is prescribed for use by all taxpayers."

As an interim measure, until adequate and fully reliable testing procedures became available for coals of all ranks, OSM's 1988 adopted regulation incorporated a suggestion made by the IRS. OSM decided to rely on a facts and circumstances test to allow an operator to elect to take an allowance for excess moisture provided the operator could demonstrate, through competent

evidence, that there was a reasonable basis for determining the existence and amount of excess moisture. OSM's standard of reasonableness required an operator to provide sufficient documentation to sustain the weight reduction. Although no specific time periods were given for testing, an operator was also required to prove that time frames chosen to measure the existence and amount of excess moisture were reasonable.

The preamble to the 1988 rule discussed OSM's willingness to accept the ASTM standard test methods to determine inherent moisture, ASTM D1412-85, and total moisture, ASTM D3302-82, pending the availability of more suitable alternatives. OSM recognized that these tests were not always reliable for this purpose and acknowledged its willingness to accept other testing methods for some subbituminous and lignite coals. OSM also stated its intent to develop technical guidance to assist operators and to assure uniform application of the excess moisture allowance throughout the industry.

The final rule which OSM adopted in 1988, at 30 CFR 870.18, allowed an operator to elect to reduce the weight of coal tonnage subject to reclamation fee payment by a percentage of excess moisture estimated to be contained in the coal at the time of fee assessment. OSM subsequently issued five AML Payer Letters to provide technical guidance to the coal industry and assist with the application of this regulation. OSM also published the guidance in the OSM Payer Handbooks.

OSM's audits of excess moisture reduced tonnages find that operators frequently fail to conform to inherent moisture test procedures described in AML Payer Letters, and do not provide adequate support for procedures they do use. Some operators mining large volumes of low-rank coal base tonnage reductions on test data that is known to be unreliable.

On December 3, 1996 (61 FR 64220), OSM published its proposal for revising the rule in the **Federal Register**. The public comment period closed on February 3, 1997.

II. Discussion of the Final Rule and Responses to Comments

Five commenters commented on the proposed rule revision: two coal companies, a trade association, a law firm representing a coal company, and an industry consulting firm. The majority of the commenters supported the intent of consolidating previous guidance into a single rulemaking, but

expressed various concerns on specific issues.

Based on the comments received, OSM is revising its regulations governing the excess moisture allowance to codify regulatory technical requirements as proposed, with some changes. The proposal incorporates by reference ASTM standards used for collecting and testing a coal sample as specified in 30 CFR 870.19(a), Table 1 and Table 2, and 30 CFR 870.20(a), Tables 1, 2, and 3. The ASTM standards were published in the 1994 Annual Book of ASTM Standards, Volume 05.05. A copy of the ASTM standards is available for inspection at the OSM Headquarters Office, Office of Surface Mining Reclamation and Enforcement, Administrative Record, Room 101, 1951 Constitution Avenue, NW., Washington, DC, and at the Office of the Federal Register, 800 North Capitol St., Washington, DC. The rule establishes a frequency for using ASTM standard test methods on coals of all ranks, and adopts the method approved by the ASTM to establish inherent moisture in low-rank coal, the ASTM D1412-93, Appendix X1. Use of this procedure for low-rank coal will ensure excess moisture allowances taken on low-rank coals are on a comparable basis to those taken on high-rank coal, and all excess moisture allowances are fair and equitable. Definitions for high and low rank coal are provided. The rule also includes an option that provides operators with a method to calculate an allowance for the excess moisture present in as-shipped coal. This is of particular benefit when an operator sells large volumes of coal, and/or sells coal with a substantial variance between the total and inherent moisture.

A. Section 870.5—Definitions

None of the commenters addressed this section, and the revised definitions for excess, inherent, and total moisture are being adopted as proposed. The definition for excess moisture is revised by including, by reference, a formula for use in calculating excess moisture in high and low-rank coals. The formula to be used for high-rank coals is found in a new section 870.19 and the formula for low-rank coals is found in a new section 870.20. The existing definition of inherent moisture is expanded to incorporate by reference the specific ASTM methods of sample collection and test procedures shown in section 870.19, Table 2, Calculating INHERENT moisture percentage in HIGH-rank coals, and section 870.20, Table 2, and Table 3, Calculating INHERENT moisture percentage in LOW-rank coals. The existing definition of total moisture is

expanded to incorporate by reference ASTM criteria in section 870.19, Table 1, for Calculating the TOTAL moisture percentage in HIGH-rank coals, and section 870.20, Table 1, for Calculating the TOTAL moisture percentage in LOW-rank coals. The expansion of the existing definitions to incorporate by reference specific ASTM sample collection methods and test procedures provides precise technical standards to facilitate operator compliance with OSM's requirements, and provides a consistent basis to calculate all excess moisture allowances.

B. Section 870.18—General Rules for Calculating Excess Moisture

The modifications to 30 CFR 870.18, excess moisture content allowance at section 870.18(a), (b), and (c) are adopted as proposed. The previous section 870.18(a) required an operator to demonstrate through competent evidence that the basis for determining the existence and amount of excess moisture is reasonable. Section 870.18(b) required standard laboratory analyses for testing inherent and total moisture. Section 870.18(c) required an operator who blended coal mined from multiple seams prior to the initial sale, transfer, or use of the coal to test for variations in the inherent moisture amounts from different seams.

This revision replaces the reasonableness standard found at section 870.18(a), the generic laboratory test requirement at section 870.18(b), and the requirement for a separate test of coal from each seam mined prior to blending the coal for sale, transfer of ownership or use at section 870.18(c). The revision also recognizes the distinct differences in high and low-rank coals in sections 870.19 and 870.20. Section 870.19 provides acceptable standards for collecting and testing a sample of high-rank coals to establish the percentage of inherent and total moisture contained in the coal, and calculate the excess moisture allowance. Section 870.20 provides like standards for calculating the excess moisture allowance for low-rank coals.

Revised section 870.18(c) adds definitions to further explain the meaning of terms as they are used in new sections 870.19 and 870.20. "As-shipped coal" and "tipple coal" is defined as the coal found at the mine or loading facility. A precise meaning for a "channel sample" and "core sample" is given and the definitions incorporate by reference the specific ASTM procedure used to take the particular kind of sample. The "correction factor" is added as the method used to establish the difference between the equilibrium

moisture and inherent moisture in low-rank coals under section 870.20.

"Equilibrium moisture" is defined as the method used to estimate the inherent moisture in all coals, and ASTM D1412 and ASTM D1412, Appendix X1, are incorporated by reference. Types of "high-rank coals" and "low-rank coals" are defined to explain how these terms are used throughout sections 870.5 and 870.18-20.

C. Section 870.19—How To Calculate Excess Moisture in HIGH-Rank Coals

The new section 870.19, which provides standard criteria for an operator to use to establish excess moisture in high-rank coals, is being adopted as proposed. Table 1 includes the ASTM standard sample collection method, ASTM D2234-89, *Standard Test Methods for Collection of a Gross Sample of Coal*, that OSM will accept for use as the basis for calculating the percentage of total moisture in as-shipped high-rank coals each day the coal is either shipped or used. Table 1 also provides the test procedure, ASTM D3302-91, *Standard Test Method for Total Moisture in Coal*, that would be acceptable for that purpose.

Two commenters suggested that more than one test method be accepted for determining total moisture in high-rank coals. The prescribed test methodology is designed to provide operators with the most reliable means of determining the total moisture in the coals. While other methods are available, the results produced may be less accurate, and they are not incorporated as being acceptable in all cases. Operators wishing to use other methodologies should obtain prior OSM approval to avoid possible disallowance of their excess moisture amounts. The operator must demonstrate that the test used yields accurate results.

One commenter opposed the requirement to test for total moisture each day coal is shipped or used because:

- It would represent an excessive burden for small to medium-sized operators who do not now test for total moisture every day they ship coal;
- The cost involved with testing for total moisture every day in many cases will either exceed or substantially diminish the value of the coal moisture deduction; and
- The previous regulation did not require it.

The commenter recommended that one analysis of each stockpile of coal be allowed as an alternative to daily

testing. OSM has considered these comments, but is retaining the daily testing requirement. The basis for the coal moisture deduction is to recognize that coal operators generally are not compensated for the weight of excess moisture in the coal they ship, and therefore, should not be required to pay fees on that weight. The total moisture of the coal can vary significantly from day to day based on weather and other conditions. The commenter stated that a single test of each stockpile, if depleted in 10 days or less, would provide an average value of the total moisture percentage for the stockpile for each day that the coal was used or shipped. In OSM's view, such an approach will not adequately recognize the variations in day-to-day moisture amounts and tonnages shipped. The more this relationship is obscured, the less relevant it becomes in recognizing the weight of excess moisture for which the operator may not be compensated.

OSM also recognizes that the cost of daily moisture tests could exceed the value of the excess moisture fee deduction that would be derived. For that reason, OSM emphasizes in section 870.18(a) that the operator may use the customer's test results on the shipped coal in support of an excess moisture deduction. It has been OSM's experience that the majority of buyers conduct such tests as part of their efforts to ensure quality. By obtaining copies of the test results and related records, the seller could avoid the expense of testing.

The daily total moisture test results must be converted to quarterly figures to be reported to OSM on the OSM-1 Form, Coal Reclamation Fee Report. To calculate the quarterly total moisture percentage an operator should: (1) Multiply the daily total moisture percentage by the tonnage shipped or used that day, to find the daily total moisture tonnage; and, (2) add the daily total moisture tonnage for each day in the quarter; and, (3) add the daily tonnage shipped or used in the quarter, to find the total tonnage shipped or used during the quarter. Then, divide the sum of the daily total moisture tonnage, step (2), by the sum of the daily tonnage shipped or used in the quarter, step (3). This will result in the total moisture percentage in high-rank coals for the quarter which is reported on the Coal Reclamation Fee Report.

Table 2 provides three methods for sampling high-rank coals, and testing the sample to determine the inherent moisture percentage that will be acceptable to OSM. To collect a coal sample directly from a coal seam an operator could use either a core or a

channel sample method. If a core sample is collected the operator is required to collect the sample using procedures in ASTM D5192-91, *Standard Practice for Collection of Coal Samples from Core* and to test by ASTM D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C*. If a channel sample is used, the operator is required to collect the sample using procedures in ASTM D4596-93, *Standard Practice for Collection of Channel Samples of Coal in a Mine* and to test by either ASTM D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C*, or ASTM D3302-91, *Standard Test Method for Total Moisture in Coal*. To collect a sample of blended coal, as-shipped coal, tippable coal, commingled coal, or coal from slurry ponds an operator will use procedures in ASTM D2234-89, *Standard Test Methods for Collection of a Gross Sample of Coal* and test by ASTM D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C* to estimate the inherent moisture.

An operator may select one of two options for timing inherent moisture tests, either quarterly or monthly. If a quarterly inherent moisture test is chosen, the operator must report the results of one inherent moisture test taken at any time during the quarter on the OSM-1 form for the quarter in which the test was taken. If monthly inherent moisture testing is preferred, the operator must create a 24-month inherent moisture baseline during the first 24-months a coal seam is in continuous operation. To create the 24-month inherent moisture baseline, an operator must collect and test one sample in each month of the calendar quarter. The quarterly inherent moisture percentage reported to OSM for each of the first 8 quarters a seam is in continuous operation is then based on a weighted average of the 3-monthly inherent moisture tests results from each quarter. To determine the quarterly weighted average inherent moisture percentage an operator would then: (1) Multiply the inherent moisture percentage for one month by the number of tons produced or shipped in that month to find the monthly inherent moisture tonnage; (2) add the inherent moisture tonnage determined in (1) for each of the 3 months to find the quarterly inherent moisture tonnage; (3) divide the inherent moisture tonnage found in (2) by the total number of tons produced or shipped during the three

months of the quarter; and, (4) report the weighted average percentage determined in (3) for the quarter to OSM on the OSM-1 form. After the first 24-months, an operator would use an updated rolling average percentage to report inherent moisture percentages for all subsequent quarters in which a coal seam is continuously mined. The rolling average percentage would be calculated by: Adding the results of one inherent moisture test of one coal sample collected during every 12-month period to the inherent moisture percentages for the preceding 23 tests, and dividing the sum of these tests by 24.

Section 870.19(a) provides instruction on how an operator would calculate the excess moisture in high-rank coals by using one of two methods. One method involves the simple subtraction of the inherent moisture percentage from the total moisture percentage as it is found in the existing rule. OSM expects that most operators of small to medium size mines would likely prefer to continue to use this method. A new alternative formula is added as a second method in section 870.19(a) that allows an adjustment in the excess moisture calculation for a percentage of inherent moisture contained in the as-shipped coal. Some operators who either mine a large volume of coal, or mine coal with a significant variance in total and inherent moisture, have requested OSM's approval to use this formula for calculating a tonnage reduction for excess moisture. OSM is now providing this option as an alternative to the existing formula used to determine the excess moisture percentage. The excess moisture percentage found in section 870.19(a) is multiplied by the tonnage sold, transferred, or used during the quarter to determine the excess moisture reduced tonnage for the quarter under section 870.19(b).

D. Section 870.20—How To Calculate Excess Moisture in LOW-Rank Coals

A new section 870.20, which provides standard criteria for an operator to use to establish excess moisture in low-rank coals, is being adopted with changes. Table 1 includes the ASTM standard sample collection procedure, ASTM D2234-89, *Standard Test Methods for Collection of a Gross Sample*, and test procedure, ASTM D3302-91, *Standard Test Method for Total Moisture in Coal*. OSM will accept for use as the basis for calculating the percentage of total moisture in as shipped low-rank coals each day the coal is either shipped or used.

The daily total moisture test results must be converted to quarterly figures to be reported to OSM on the OSM-1, Coal

Reclamation Fee Report. To calculate the quarterly total moisture percentage an operator must: (1) Multiply the daily total moisture percentage by the tonnage shipped or used that day, to find the daily total moisture tonnage; (2) add the daily total moisture tonnage for each day in the quarter; and, (3) add the daily tonnage shipped or used in the quarter, to find the total tonnage shipped or used during the quarter. Then, divide the sum of the daily total moisture tonnage, step (2), by the sum of the daily tonnage shipped or used in the quarter, step (3). This will result in the total moisture percentage in low-rank coal for the quarter which would be reported by the OSM-1, Coal Reclamation Fee Report.

Table 2 provides instructions on how an operator will determine the inherent moisture percentage of coal mined from one or more benches of low-rank coals by: collecting one sample of as-shipped coal each month of the calendar quarter using procedure ASTM D2234-89, *Standard Test Methods for Collection of a Gross Sample of Coal*; and testing each sample for equilibrium moisture by ASTM D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C*.

The operator would calculate the inherent moisture percentage to report to OSM for the quarter by averaging the results from the 3 monthly equilibrium moisture tests, and adding the correction factor.

Table 3 provides the method an operator is required to use to establish the correction factor during the first quarter an excess moisture allowance is taken on low-rank coals mined from a bench or multiple benches. The correction factor is found by using procedures in ASTM D1412-93 Appendix X1, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C* to collect 15 samples of coal from a freshly exposed, unweathered coal seam face during the quarter. All 15 samples would be tested for inherent moisture and equilibrium moisture as required by ASTM D1412-93 Appendix X1, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C*.

In the proposed rule, we stated that 5 samples had to be taken in each month of the first quarter for a total of 15 samples. Three commenters suggested a variety of alternatives, including allowing companies to:

- Perform a single annual collection of 20 samples;
- Collect all 15 samples in a single month; or

—Take 20 to 30 samples annually.

The OSM-1 forms reporting tonnage and moisture amounts are to be filed for each calendar quarter. The purpose of the samples is to help determine the appropriate moisture amount for the coal shipped or used in the calendar quarter being reported. As a result, it is not feasible to delay the sampling and testing beyond that quarter. In response to the commenters, however, we have revised the final rule to state that the sampling and testing need not be done until the first quarter a deduction is taken, and that all 15 samples may be taken anytime during the quarter rather than 5 each month. This is also designed to address some commenters' concerns that sampling on some days during the quarter may be difficult due to harsh weather.

The operator is required to establish the correction factor for the first quarter and all later quarters by: averaging the 15 inherent moisture test results; averaging the 15 equilibrium moisture test results; and, subtracting the average inherent moisture from the average equilibrium moisture.

Three commenters also suggested that a regression formula be allowed to determine the correction factor rather than simple subtraction of the average equilibrium moisture from the average inherent moisture. Generally, regression analysis is a statistical approach which can be used to determine inherent moisture based on its relationship to possibly several other variables of coal content, such as ash, Btu, and equilibrium moisture. We examined this approach and found that it would require sampling for every variable used in the analysis and a substantially greater number of tests to produce reliable results. We also found it difficult to specify all the different variables that should be considered in every situation. As a result, we are not incorporating a regression approach into the final rule. If an operator elects to use a method other than that provided in the rule, the operator should obtain prior OSM approval to avoid having to revert to the simple subtraction method.

One commenter objected to calculating a correction factor for each bench as we originally proposed, pointing out that multiple benches may be mined simultaneously. We have revised the requirement in the final rule to allow an average correction factor to be calculated and applied when such situations exist. The correction factor could be changed at any time provided new samples are taken and all procedures shown in Table 3 are repeated.

III. Procedural Matters

Federal Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995, Public Law 104-13, OSM requested comments from the public and the Office of Management and Budget (OMB) on the information collections contained in the proposed rulemaking. Commenters were asked to address: (a) Whether the proposed collection of information is necessary for the proper performance of OSM, including whether the information will have practical utility; (b) the accuracy of OSM's estimate of the burdens of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of collection on the respondents, including the use of automated collection techniques or other forms of information technology. Comments received on the information collection requirements in the proposed rule have been addressed in the preamble above:

Title: Abandoned mine reclamation fund—fee collection and coal production reporting: 30 CFR part 870.

OMB Control Number: 1029-0090.

Abstract: Section 402 of the Surface Mining Control and Reclamation Act of 1977 requires operators of coal mining operations to pay a reclamation fee to the Secretary for deposit in the Abandoned Mine Reclamation Fund for the purpose of reclaiming lands mined and left abandoned, or inadequately reclaimed, prior to the Act's effective date. Reclamation fees are to be paid on each ton of coal produced.

Sections 870.18, 870.19, and 870.20 of the regulations allow an operator to take an excess moisture content allowance when calculating the amount of reclamation fees that are owed. To substantiate the calculated moisture deduction claimed, an operator (or other entity responsible for the payment of the reclamation fee) is required to document by standard laboratory analysis the excess moisture content for each coal seam mined. This documentation must be updated as necessary to establish the continuing validity of the excess moisture content allowance taken by the operator.

Need For and Use: The information submitted will be used by OSM auditors to verify an operator's compliance with Section 402 of the Act and the requirements of the regulation at 30 CFR 870.18, 870.19, and 870.20. During an audit, operators must substantiate how the calculation for excess moisture was determined. Response to this collection of information is required to obtain a

benefit and is held confidential under the Freedom of Information Act.

Operators must retain their records for a 6-year period to allow for the audit of tax records. Courts have ruled that the AML fee is an excise tax. The applicable provision of the Energy Policy Act of 1992 (Section 2515) extended the fee through 2004.

Respondents: Approximately 1,050 coal mining operators who take the coal moisture deduction allowance.

Total Annual Burden: OSM estimates that 2 hours will be required to prepare and maintain the documentation for audit purposes per respondent. The total annual burden is estimated to be 2,100 hours.

Executive Order 12988 on Civil Justice Reform

The Department of the Interior has determined that this rule meets the requirements of sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform.

Executive Order 12866

This rule has been determined to be significant under Executive Order 12866 and has been reviewed by the Office of Management and Budget.

The rule is not considered economically significant under section 3(f)(1) of Executive Order 12866 and will not have a significant economic effect on the coal mining industry, or on regional or national economies. OSM is providing a viable methodology that will enable coal mine operators to calculate the correct allowance for excess moisture. OSM is not attempting to specify any given amount, or percentage, as an excess moisture allowance. For that reason it is not possible to predict the cost that this revision will have in terms of the amount of the additional AML fees that the industry will pay and the government collect or the industry save and the government not collect. Based on AML tonnages reported, and the total moisture allowances taken for 1996, the industry saved approximately \$5,729,000 in terms of the tonnage reported. With regard to benefits, the rule revision will ensure that all excess moisture allowances are fair and equitable. OSM's revision also includes an option that will provide operators with a method to calculate an allowance for the inherent moisture present in as-shipped coal. This will be of particular benefit when an operator sells large volumes of coal, and/or sells coal with a substantial variance between the total and inherent moisture.

Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, the Department of the Interior has determined that this rule will not have a significant economic effect on a substantial number of small entities for the following reason. The rule will provide two methods for operators to calculate the excess moisture in high-rank coal. OSM expects that most operators of small to medium size mines will likely prefer to continue to use the current method of calculation while operators who either mine a large volume of coal, or mine coal with a significant variance in total and inherent moisture, will use the other option as an alternative to the existing formula used to determine the excess moisture percentage. Thus, for small operators any change from current practices is optional.

Unfunded Mandates Reform Act

This rule will not impose a cost of \$100 million or more in any given year on any governmental entity or the private sector.

National Environmental Policy Act

OSM has prepared an environmental assessment (EA) of this rule and has made a Finding of No Significant Impact (FONSI) on the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4332(2)(C). The EA and FONSI are on file in the OSM Administrative Record.

Author: The principal author of this rule is Dr. Kewal Kohli, Mining Engineer, Office of Surface Mining, U.S. Department of the Interior, 3 Parkway Center, Pittsburgh, PA 15220. Inquiries with respect to the rule should be directed to Dr. Kohli at the address and telephone specified under **FOR FURTHER INFORMATION CONTACT**.

List of Subjects in 30 CFR Part 870

Incorporation by reference, Reporting and recordkeeping requirements, Surface mining, Underground mining.

Dated: July 2, 1997.

Bob Armstrong,

Assistant Secretary, Land and Minerals Management.

Accordingly, 30 CFR part 870 is amended as set forth below:

PART 870—ABANDONED MINE RECLAMATION FUND—FEE COLLECTION AND COAL PRODUCTION REPORTING

1. The authority citation for part 870 is revised to read as follows:

Authority: 30 U.S.C. 1201 *et seq.*

2. Section 870.5 is amended by revising definitions of "excess moisture," "inherent moisture" and "total moisture" to read as follows:

§ 870.5 Definitions.

* * * * *

Excess moisture means the difference between total moisture and inherent moisture, calculated according to § 870.19 for high-rank coals or the difference between total moisture and inherent moisture calculated according to § 870.20 for low-rank coals.

* * * * *

Inherent moisture means moisture that exists as an integral part of the coal seam in its natural state, including water in pores, but excluding that present in macroscopically visible fractures, as determined according to § 870.19(a) or § 870.20(a).

* * * * *

Total moisture means the measure of weight loss in an air atmosphere under rigidly controlled conditions of temperature, time and air flow, as determined according to either § 870.19(a) or § 870.20(a).

3. Section 870.18 is revised to read as follows:

§ 870.18 General rules for calculating excess moisture.

If you are an operator who mined coal after June 1988, you may deduct the weight of excess moisture in the coal to determine reclamation fees you owe under 30 CFR 870.12(b)(3)(i). Excess moisture is the difference between total moisture and inherent moisture. To calculate excess moisture in HIGH-rank coal, follow § 870.19. To calculate excess moisture in LOW-rank coal, follow § 870.20. Report your calculations on the OSM-1 form, Coal Reclamation Fee Report, for every calendar quarter in which you claim a deduction. Some cautions:

(a) You or your customer may do any test required by §§ 870.19 and 870.20. But whoever does a test, you are to keep test results and all related records for at least six years after the test date.

(b) If OSM disallows any or all of an allowance for excess moisture, you must submit an additional fee plus interest computed according to § 870.15(c) and penalties computed according to § 870.15(f).

(c) The following definitions are applicable to §§ 870.19 and 870.20. ASTM standards D4596-93, *Standard Practice for Collection of Channel Samples of Coal in a Mine*; D5192-91, *Standard Practice for Collection of Coal Samples from Core*; and, D1412-93,

Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C are

incorporated by reference as published in the 1994 Annual Book of ASTM Standards, Volume 05.05. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Each applicable ASTM standard is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the **Federal Register**. You may obtain copies from the ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428. A copy of the ASTM standards is available for inspection at the Office of Surface Mining Reclamation and Enforcement, Administrative Record, Room 101, 1951 Constitution Avenue, NW., Washington, DC, or at the Office of the Federal Register, 800 North Capitol St., NW., Suite 700, Washington, DC.

(1) *As-shipped coal* means raw or prepared coal that is loaded for shipment from the mine or loading facility.

(2) *Blended coal* means coals of various qualities and predetermined quantities mixed to control the final product.

(3) *Channel sample* means a sample of coal collected according to ASTM standard D4596-93 from a channel extending from the top to the bottom of a coal seam.

(4) *Commingled coal* means coal from different sources and/or types combined prior to shipment or use.

(5) *Core sample* means a cylindrical sample of coal that represents the

thickness of a coal seam penetrated by drilling according to ASTM standard D5192-91.

(6) *Correction factor* means the difference between the equilibrium moisture and the inherent moisture in low rank coals for the purpose of § 870.20(a).

(7) *Equilibrium moisture* means the moisture in the coal as determined through ASTM standard D1412-93.

(8) *High-rank coals* means anthracite, bituminous, and subbituminous A and B coals.

(9) *Low-rank coals* means subbituminous C and lignite coals.

(10) *Slurry pond* means any natural or artificial pond or lagoon used for the settlement and draining of the solids from the slurry resulting from the coal washing process.

(11) *Tipple coal* means coal from a mine or loading facility that is ready for shipment.

4. Sections 870.19 and 870.20 are added to read as follows:

§ 870.19 How to calculate excess moisture in HIGH-rank coals.

Here are the requirements for calculating the excess moisture in high-rank coals for a calendar quarter. ASTM standards D2234-89, *Standard Test Methods for Collection of a Gross Sample of Coal*; D3302-91, *Standard Test Method for Total Moisture in Coal*; D5192-91, *Standard Practice for Collection of Coal Samples from Core*; D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C*; and, D4596-93, *Standard Practice for Collection of Channel Samples of Coal in a Mine* are incorporated by reference

as published in the 1994 Annual Book of ASTM Standards, Volume 05.05. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Each applicable ASTM standard is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the **Federal Register**. You may obtain copies from the ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428. A copy of the ASTM standards is available for inspection at the Office of Surface Mining Reclamation and Enforcement, Administrative Record, Room 101, 1951 Constitution Avenue, NW., Washington, DC, or at the Office of the Federal Register, 800 North Capitol St., NW., Suite 700, Washington, DC.

(a)(1) Calculate the excess moisture percentage using one of these equations:

$$EM = TM - IM$$

or

$$EM = TM - \left(IM \times \frac{100 - TM}{100 - IM} \right)$$

(2) EM equals excess moisture percentage. TM equals total as-shipped moisture percentage calculated according to Table 1 of this section. IM equals inherent moisture percentage calculated according to Table 2 of this section.

(b) Multiply the excess moisture percentage by the tonnage from the bonafide sales, transfers of ownership, or uses by the operator during the quarter.

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Table 1

Calculating TOTAL moisture percentage in HIGH-rank coals ¹

**Collect and test each day you ship
or use coal ▼**

Collect a sample of as-shipped or used coal. Follow procedures in ASTM D2234-89.

Test the sample for daily total moisture percentage. Follow laboratory procedures in ASTM D3302-91.

Obtain prior OSM approval for use of other procedures.

**Convert daily test results to quarterly figures
and report them ▼**

1. Multiply daily total moisture percentage by daily tonnage shipped or used. You now have daily total moisture tonnage.
2. Add up daily total moisture tonnage for the quarter.
3. Add up daily tonnage shipped or used in the quarter.
4. Divide 2 by 3.

Report this total moisture percentage in high-rank coal for the quarter on OSM-1, Coal Reclamation Fee Report.

¹ See §870.19 for the incorporation by reference of the ASTM standards.

Calculating INHERENT moisture percentage in HIGH-rank coals ¹**Choose from 3 ways to collect and test ▼****First**

Collect a core sample². Follow procedures in ASTM D5192-91.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412-93.

Or second

Collect a channel sample. Follow procedures in ASTM D4596-93.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412-93 or ASTM D3302-91.

Or third

Collect a sample of blended coal, as-shipped coal, tippie coal, commingled coal, or coal from slurry ponds. Follow procedures in ASTM D2234-89.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412-93.

Choose from 2 ways to time the tests and convert the results for quarterly reporting ▼**First**

Collect and test once each quarter. Report test results for that quarter on OSM-1. Test results need no converting; they are in quarterly units already.

Or second

Create a 24-month baseline and update as follows:

For reporting months 1-24 . . .

Collect and test one sample each month. Each quarter, calculate a weighted average percentage of inherent moisture:

- Multiply a month's inherent moisture percentage by tons produced or shipped. You now have the month's inherent moisture tonnage.
- Add up 3 months of that inherent moisture tonnage.
- Divide by tons produced or shipped in those 3 months. Report the quarter's weighted average percentage on OSM-1.

For all subsequent months . . .

Collect and test one sample for inherent moisture every 12 months. Calculate—and report in the following 4 quarters—one updated rolling average percentage:

- Add to the annual sample percentage the inherent moisture percentages for the preceding 23 tests.
- Divide by 24.

Report the weighted average percentage on OSM-1.

¹ See §870.19 for the incorporation by reference of the ASTM standards.

² Core sampling was approved by the ASTM effective January 1, 1992.

§ 870.20 How to calculate excess moisture in LOW-rank coals.

Here are the requirements for calculating the excess moisture in low-rank coals for a calendar quarter. ASTM standards D2234-89, *Standard Test Methods for Collection of a Gross Sample of Coal*; D3302-91, *Standard Test Method for Total Moisture in Coal*; and, D1412-93, *Standard Test Method for Equilibrium Moisture of Coal at 96 to 97 Percent Relative Humidity and 30°C* are incorporated by reference as published in the 1994 Annual Book of ASTM Standards, Volume 05.05. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C.

552(a) and 1 CFR part 51. Each applicable ASTM standard is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the **Federal Register**. You may obtain copies from the ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428. A copy of the ASTM standards is available for inspection at the Office of Surface Mining Reclamation and Enforcement, Administrative Record, Room 120, 1951 Constitution Avenue, NW., Washington, DC, or at the Office of the Federal Register, 800 North Capitol St., NW., Suite 700, Washington, DC.

(a)(1) Calculate the excess moisture percentage using one of these equations:

$$EM = TM - IM$$

or

$$EM = TM - \left(IM \times \frac{100 - TM}{100 - IM} \right)$$

(2) EM equals excess moisture percentage. TM equals total as-shipped moisture percentage calculated according to Table 1 of this section. IM equals inherent moisture percentage calculated according to Tables 2 and 3 of this section.

(b) Multiply the excess moisture percentage by the tonnage from the bona fide sales, transfers of ownership, or uses by the operator during the quarter.

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Calculating TOTAL moisture percentage in LOW-rank coals ¹

Collect and test each day you ship or use coal ▼

Collect a sample of as-shipped or used coal. Follow procedures in ASTM D2234-89.

Test the sample for daily total moisture percentage. Follow laboratory procedures in ASTM D3302-91.

Obtain prior OSM approval for use of other procedures.

Convert test results to quarterly figures and report them ▼

Convert daily total moisture percentage to quarterly total moisture percentage:

1. Multiply daily total moisture percentage by daily tonnage shipped or used. You now have daily total moisture tonnage.
2. Add up daily total moisture tonnage for the quarter.
3. Add up daily tonnage shipped or used in the quarter.
4. Divide 2 by 3.

Report this total moisture percentage in low-rank coal for the quarter on OSM-1, Coal Reclamation Fee Report.

¹ See §870.20 for the incorporation by reference of the ASTM standards.

Calculating INHERENT moisture percentage in LOW-rank coals ¹

Collect and test once a month ▼

Collect 1 sample of as-shipped coal.
Follow procedures in ASTM
D2234-89.

Test the sample for equilibrium
moisture. Follow laboratory
procedures in ASTM D1412-93.

Convert test results to quarterly figures and report them ▼

Calculate inherent moisture percentage for the quarter:

- Average the 3 equilibrium moisture results from your monthly tests.
- Add to this average a **Correction Factor** that you calculate for the first quarter according to Table 3 below.

Report this inherent moisture percentage for the quarter on OSM-1.

¹ See §870.20 for the incorporation by reference of the ASTM standards.

Calculating the Correction Factor for Table 2 ¹

Collect and test in the first quarter a deduction is taken▼

Collect 15 samples that are representative of the entire seam from a freshly exposed, unweathered coal seam face. Follow procedures in ASTM D1412-93 Appendix X1.

Test each sample for two things:

- Inherent moisture
- Equilibrium moisture.

Follow laboratory procedures in ASTM D1412-93 Appendix X1.

Convert test results into a correction factor for all quarterly reports ▼

Use the test results to calculate a correction factor:

- Average the 15 inherent moisture results from your tests.
- Average the 15 equilibrium moisture results from your tests.
- Subtract the average equilibrium moisture from the average inherent moisture.

You now have a correction factor for the first quarter the deduction is taken, and all later quarters. Use it in Table 2 above. You may change the correction factor at any time by repeating the steps in this table.

A correction factor applies to only the bench you sample. If you mine multiple benches or seams simultaneously, you may combine the sample results from the different benches or seams to calculate an average correction factor. You may update the correction factor by repeating the procedures or incorporating new test results with the initial result.

¹ See §870.20 for the incorporation by reference of the ASTM standards.