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 in-
terest computed according to § 870.21(a)
and penalties computed according to
§ 870.21(c).
(c) The following definitions are ap-
plicable 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 accord-
ance with 5 U.S.C. 552(a) and 1 CFR
part 51. Each applicable ASTM stand-
ard 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 ob-
tain copies from the ASTM, 100 Barr
Harbor Drive, West Conshohocken,
Pennsylvania 19428. A copy of the
ASTM standards is available for in-
spection at the Office of Surface Min-
ing Reclamation and Enforcement, Ad-
ministrative Record, Room 101, 1951
Constitution Avenue, NW., Wash-
ington, DC, or at the National Archives
and Records Administration (NARA).
For information on the availability of
this material at NARA, call 202–741–
6030, or go to: http://www.archives.gov/
federal_register/code_of_federal_regulations/ibr_locations.html.
(1) As-shipped coal means raw or pre-
pared coal that is loaded for shipment
from the mine or loading facility.
(2) Blended coal means coals of var-
ious qualities and predetermined quan-
tities mixed to control the final prod-
uct.
(3) Channel sample means a sample of
coal collected according to ASTM
standard D4596–93 from a channel ex-
tending 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 dif-
ference between the equilibrium mois-
ture 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 subbitu-
minous 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.
[62 FR 60142, Nov. 6, 1997, as amended at 73
FR 67633, Nov. 14, 2008]
§ 870.19 How to calculate excess mois-
ture in HIGH-rank coals.
Here are the requirements for calcu-
ling the excess moisture in high-rank
coals for a calendar quarter. ASTM
standards D2234–89, Standard Test Meth-
ods for Collection of a Gross Sample of
Coal; D3302–91, Standard Test Method for
Total Moisture in Coal; D5192–91, Stand-
ard Practice for Collection of Coal Sam-
ples 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
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(a)(1) Calculate the excess moisture percentage using one of these equations:

\[ \text{EM} = \frac{\text{TM} - \text{IM}}{100} \]

or

\[ \text{EM} = \text{TM} - \left( \frac{\text{IM} \times (100 - \text{TM})}{100 - \text{IM}} \right) \]

(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.

Table 1

<table>
<thead>
<tr>
<th>Calculating TOTAL moisture percentage in HiGH-rank coals (^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect and test each day you ship or use coal (^*)</td>
</tr>
<tr>
<td>Collect a sample of as-shipped or used coal. Follow procedures in ASTM D2234-89.</td>
</tr>
<tr>
<td>Test the sample for daily total moisture percentage. Follow laboratory procedures in ASTM D3302-91.</td>
</tr>
<tr>
<td>Obtain prior OSM approval for use of other procedures.</td>
</tr>
<tr>
<td>Convert daily test results to quarterly figures and report them (^*)</td>
</tr>
<tr>
<td>1. Multiply daily total moisture percentage by daily tonnage shipped or used. You now have daily total moisture tonnage.</td>
</tr>
<tr>
<td>2. Add up daily total moisture tonnage for the quarter.</td>
</tr>
<tr>
<td>3. Add up daily tonnage shipped or used in the quarter.</td>
</tr>
</tbody>
</table>

\(^1\) See §870.19 for the incorporation by reference of the ASTM standards.
§ 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.,

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calculating INHERENT moisture percentage in HIGH-rank coals</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Choose from 3 ways to collect and test</th>
<th>Choose from 2 ways to time the tests and convert the results for quarterly reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First</strong></td>
<td></td>
</tr>
<tr>
<td>Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412–93.</td>
<td></td>
</tr>
<tr>
<td><strong>Or second</strong></td>
<td></td>
</tr>
<tr>
<td>Collect a channel sample. Follow procedures in ASTM D4596–93.</td>
<td></td>
</tr>
<tr>
<td>Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412–93 or ASTM D3302–91.</td>
<td></td>
</tr>
<tr>
<td><strong>Or third</strong></td>
<td></td>
</tr>
<tr>
<td>Collect a sample of blended coal, as-shipped coal, tipple coal, commingled coal, or coal from slurry ponds. Follow procedures in ASTM D2234–89.</td>
<td></td>
</tr>
<tr>
<td>Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM D1412–93.</td>
<td></td>
</tr>
</tbody>
</table>

For all subsequent months...

Create a 24-month baseline and update as follows:

- 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.

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.