APPEALS
INDUSTRY SPECIALIZATION PROGRAM
SETTLEMENT GUIDELINES

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ISSUE:	**EXCESS MOISTURE**
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STATEMENT OF ISSUE

What testing methods or procedures are acceptable to the Service as competent evidence of the existence and amount of excess moisture in coal for determining the permissible reduction to the taxable weight of such coal for excess moisture for purposes of the tax imposed under Internal Revenue Code ("I.R.C.") § 4121?

EXAMINATION DIVISION POSITION

The Service accepts the testing method outlined in ASTM D1412 for high rank coal and for low rank coal, when adjusted with a correction factor, as competent evidence of the existence and amount of excess moisture for purposes of I.R.C. § 4121.

INDUSTRY/TAXPAYER POSITION

For tax periods after 1995 most large taxpayers have adopted procedures similar to those detailed in the Examination Division's position paper. However, for smaller taxpayers it is not known if there exists the same consistency for tax periods after 1995. In addition, for periods before 1996, various methods were used by taxpayers to compute excess moisture in sold coal.

Comments obtained from an industry group expressed its opinion that the method of measuring excess moisture detailed in the Examination Division's coordinated position paper be only used as a safe harbor for those taxpayers who chose to follow said procedure. For those taxpayers who do not follow the procedures outlined in the coordinated position, the mining industry generally believes that they should be allowed to show through competent evidence that the method of their choice accurately measures excess moisture content of their sold coal.

DISCUSSION

BACKGROUND-

Section 4121 of the Internal Revenue Code imposes an excise tax on the sale of coal. It provides in pertinent part as follows:

(a) Tax imposed.--
(1) In general.-- There is hereby imposed on coal from mines located in the United States sold by the producer, a tax equal to the rate per ton determined under subsection (b).

(2) Limitation on tax.-- The amount of the tax imposed by paragraph (1) with respect to a ton of coal shall not exceed the applicable percentage (determined under subsection (b)) of the price at which such ton of coal is sold by the producer.

(b) Determination of rates and limitations on tax.--For purposes of subsection (a)-- (1) the rate of tax on coal from underground mines shall be $1.10, (2) the rate of tax on coal from surface mines shall be $.55, and (3) the applicable percentage shall be 4.4 percent.

26 U.S.C. §4121 (1994).

This section was added to the Internal Revenue Code in 1977 by the Black Lung Benefits Revenue Act of 1977, § 2(a), 1978-1 C.B. 494 (1978). The congressional purpose in enacting the tax was to fund the Black Lung Disability Trust Fund, which is used to pay benefits to coal miners who are disabled by pneumoconiosis, commonly known as "black lung", where the operator fails to payor is no longer in existence.

Lignite is exempt from the tax. I.R.C. § 4121 (c). Lignite is defined in accordance with the standard specification for classification of coal by rank of the American Society for Testing and Materials ("ASTM") (Annual Book of ASTM Standards Section 5, Volume 05.05, D388). Treas. Reg. § 48.4121(c)-(1).

In computing the tax under I.R.C. § 4121, the Service held in Revenue Ruling 79-119, 1979-1 C.B. 350, that the full tonnage of raw coal delivered by the producer to the preparation plant is used with no reduction for extraneous material subsequently

removed. Consistent with Rev. Rul. 79-119, supra, the Service initially took the position that the inherent moisture content of the coal and any moisture which accumulates subsequent to extraction is to be included in the tonnage to which the tax is to be applied. Rev. Rul. 82-222, 1982-2 C.B. 195. This position, however, was rejected in A.J. Taft Coal Co. v Commissioner, 605 F. Supp. 366 (N.D. Ala. 1984), .§.fr.Q without opinion, 760 F .2d 280 (11 th Cir. 1985). The district court opinion in I.g.f! held that, for purposes of I.R.C. § 4121, the term "coal" did not include water that is in excess of the coal's inherent moisture content and that is reasonably measurable. Thus, excess moisture could be excluded in determining the tonnage subject to the tax.

In 1986, the IRS published Revenue RulinQ 86-96. 1986-2 C. B. 181, to carry out the recently-issued decision in A.J. Taft Coal Co. v. United States [84-2 USTC 1116,421],605 F. Supp. 366 (N.D. Ala. 1984), affd, 760 F.2d 280 (11th Cir. 1985) (table) (Taft I). Taft I [84-2 USTC 1116,421]

In its Revenue Ruling, the IRS stated:

For purposes of the tax imposed by section 4121 of the Code, the Internal Revenue Service will follow the Taft Coal Co. [l§fU] [84-2 USTC 1116,421] decision regarding the moisture content of coal. The Service will allow a calculated reduction of taxable weight of coal for the weight of excess moisture, but only where the taxpayer can demonstrate through competent evidence that there is a reasonable basis for its determination of the existence, and amount, of excess moisture.

Rev. Rul. 86-96, 1986-2 C.B. 181.

For purposes of section 4121 the excess moisture issue should only apply to relatively higher priced coal. Coal from surface mines that sells for less than $12.50 per ton and coal from underground mines that sells for less than $25 per ton are taxed at a rate of 4.4 percent ad valorem rather than at a flat rate per ton. As the weight of coal is immaterial for tax purposes at these lower prices, the moisture in the coal is also immaterial.

This position has been affirmed in three court decisions, Costain Coal Inc. 96-2 USTC P70,062, 36 Fed.CI. 38 (CI. Ct. 1996), AMAX Coal Company v United States of America, No. EV 94-79-CR/H, slip op. (S.D. Ind. December 31, 1996), Cyprus Amax Minerals Company. United States of America, 97*1 USTC P70,077.

Accordingly, there should be no reduction in the weight of the coal for excess moisture where the selling price of coal is below the threshold price detailed in section 4121.

Notwithstanding the foregoing axiom, in certain cases where the price per ton of coal is close to the threshold price, it still will be necessary to determine the amount of excess moisture content. This is necessary in order to determine whether the per ton price of sold coal is above or below the threshold price.

With regard to reduction in the weight of coal for excess moisture where the selling price is above the threshold the issue becomes what methods are acceptable for determining the moisture and the excess moisture content of taxable coal. The Examination Industry Specialist set forth in his coordinated issue position paper a methodology for computing excess moisture that the mining industry could rely on as a safe harbor under certain conditions. The methodology detailed in the report is consistent with the methodology used by the Department of Interior's Office of Surface Mining (OSM).

The methodology described as a safe harbor method is as follows:

To ensure consistent treatment among all producers, the following terms are clarified:

A) As-shipped Coal: Raw or prepared coal that is loaded for shipment from the mine or loading facility.

B) Blended Coal: Mixing in predetermined and controlled quantities to give a uniform product. Does not include coal blended with purchased coal.

C) Channel Sample: A sample of coal collected according to ASTM Standard D4596 from a channel extending from the top to the bottom of a coal seam.

D) CommingLed Coal: Where coal from multiple surface permits is combined or commingled with coal from multiple underground permits of the taxpayer.

E) Core Sample: A cylindrical sample of coal that represents the thickness of a coal seam penetrated by drilling according to ASTM Standard D5192.

F) Correction Factor: The difference between inherent moisture as determined by ASTM D3302 and equilibrium moisture in low-rank coal.

G) Equilibrium Moisture: An estimate of the inherent moisture in all coals, but adjusted with a correction factor for low-rank coal.

H) Hiah-rank Coals: Anthracite, bituminous and subbituminous A and B coals.

I) Inherent Moisture: In coal, moisture that exists as an integral part of the coal seam in its natural state, including water in pores but not that present in macroscopically visible fractures. On removal of coal from a seam, the water originally present in fractures appears as surface moisture whereas coal containing only pore moisture appears dry. (See ASTM D121 Standard Definitions)

J) Low-rank coal: Subbituminous C

K) Tipple Coal: Coal from a mine or loading facility that is ready for shipment.

To calculate the moisture content, the rank of the taxable coal mined and sold must first be determined. For purposes of this position paper, all coal mined and sold will be considered "high-rank" coal, except for subbituminous C, which will be considered a "Iow-rank" coal.

For high-rank coal, taxpayers can follow the procedures according to Tables 1 and 2 to compute total moisture and inherent moisture, respectively.

For low-rank coal, taxpayers can follow the procedures according to Tables 3, 4 and 5 to compute total moisture, constructed inherent moisture and a correction factor, respectively.

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To calculate the excess moisture in coal for a calendar quarter, either of the following two methods will be acceptable:

(1) EM = TM- IM QB

(2) EM = 1 -{ (1- TM)/(1-IM) }1

Where EM equals excess moisture percentage. TM equals total as-shipped moisture percentage calculated according to Table 1 or 3. IM equals inherent moisture or constructed inherent moisture percentage calculated according to Table 2 or 4.

1 (note in the initial publication of the safe harbor in the Examination position paper the formula was published as follows EM = 1 -(1 -TM / 1 -IM). The corrected formula is shown above.)

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T able 1 **Calculating TOTAL moisture percentage in HIGH-rank coal**

Collect and test each day YOu ship or use coal

Collect a sample of as-shipped or used coal. Follow procedures in ASTM 02234.

Test the sample for daily total moisture percentage. Follow laboratory procedures in ASTM 03302.

Convert daily test results to Quarterly figures and report them

Convert daily total moisture percentage:

- **.MUL TIPL** y daily total moisture percentage by daily tonnage shipped or used. You now have daily total moisture tonnage.
- **.ADD** up daily total moisture tonnage for the quarter-
- **.ADD** up daily tonnage shipped or used in the quarter-
- **.DIVIDE** step 2 by step 3.

Report this total moisture percentage in high-rank coal for the quarter.

Calculating INHERENT moisture percentage in HIGH-rank coal

Choose from 3 **ways to collect and test**

FIRST Collect a core sample. Follow procedures in ASTM 05192.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM 01412, or

SECOND Collect a channel sample. Follow procedures in ASTM 04596.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM 03302 (only if no visible signs of moisture), or in ASTM 1412.

THIRD Collect a sample of blended coal, as-shipped coal, tipple coal, commingled coal or coal from slurry ponds. Follow procedures in ASTM 02234.

Test the sample to estimate inherent moisture. Follow laboratory procedures in ASTM 01412.

Choose from 2 **ways to time the tests and convert the results for Quarterly reporting**

FIRST Collect and test once each quarter, 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:

- **MUL TIPL** Y 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.

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 quarter's weighted average percentage.

Table 3

Calculating TOTAL moisture percentage in LOW-rank coal

Collect and test each day YOu ship or use coal

Collect a sample of as-shipped or used coal. Follow procedures in ASTM 02234.

Test the sample for daily total moisture percentage. Follow laboratory procedures in ASTM 03302.

Convert daily test results to Quarterly figures and report them

Convert daily total moisture percentage:

- **MUL TIPL** Y daily total mo isture percentage by daily tonnage shipped or used. You now have daily total moisture tonnage.
- **ADD** up daily total moisture tonnage for the quarter-
- **ADD** up daily tonnage shipped or used in the quarter-
- **DIVIDE** step 2 by step 3.

Record this total moisture percentage in low-rank coal for the quarter.

Table 4

Calculating a **constructed INHERENT moisture percentage in LOW-rank coal**

Collect and test once a **month**

Collect 1 sample of as-shipped coal. Follow procedures in ASTM 02234.

Test the sample for equilibrium moisture. Follow laboratory procedures in ASTM 01412.

Calculate inherent moisture percentage for the quarter:

- **AVERAGE** the 3 equilibrium moisture results from your monthly tests.
- **ADD** to this average the CORRECTION FACTOR that is calculated according to Table 5.

Report this inherent moisture percentage for the quarter.

Table 5

Calculating the CORRECTION FACTOR for Table 4

Collect and test each month in the first Quarter

Collect 5 samples of a freshly exposed, unweathered coal seam face. Follow procedures in ASTM 0 1412-93, Appendix X 1.

Test each sample for two things:

- Inherent (total) moisture (Test Method 03302) .
- Equilibrium moisture (Test Method 01412)

Follow laboratory procedures in ASTM 01412-93, AppendixX1.

Convert test results into a **correction factor for all Quarterlv reports**

Use the test results to calculate a correction factor:

- **AVERAGE** the 15 (as a minimum) 03302 moisture results from your monthly tests.
- **AVERAGE** the 15 (as a minimum) equilibrium moisture results from your monthly tests.
- **SUBTRACT** the average equilibrium moisture results from the average 03302 moisture results.

You now have a **CORRECTION FACTOR** for the first quarter and all later ones. Use it in Table 4. 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.**

SETTLEMENT GUIDELINES

It is clear that a taxpayer is entitled to reduce the number of tons of coal sold for the purposes of computing the excise tax under section 4121 to the extent that the taxpayer can demonstrate through competent evidence the amount of excess moisture. See M Taft Coal Co. v Commissioner, 605 F. Supp. 366 (N.D. Ala. 1984), .§ff.Q without opinion, 760 F .2d 280 (11 th Cir. 1985). The purpose of the examination division's position paper is to establish a uniform industry standard that utilizes ASTM standards and is consistent with the methodology used by the Department of Interior's Office of Surface Mining (OSM).

Of significance is the Service's adoption of the equilibrium moisture test, (referred to as D 1412 by ASTM) conducted in accordance with ASTM standards, as an appropriate measure of inherent moisture. The test has been sanctioned by the Office of Surface Mining, and has been scientifically approved by the Association of Standard Tests and Measures (ASTM). In addition, the equilibrium moisture test was recognized both in IEf!, supra and Amax Coal Company, supra District Court opinions.

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