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IRS Issues Section 45 Guidance Regarding Refined Coal Facilities

On December 7, 2009, the Internal Revenue Service (“IRS”) issued Notice 2009-90 (the “Notice”), providing guidance relating to the tax credit under Section 45 of the Internal Revenue Code (“Code”) for refined coal. Section 45 of the Code provides a tax credit for the production of refined coal at a refined coal production facility during the 10-year period beginning on the date the facility was originally placed in service, and sold by the taxpayer to an unrelated person (defined in the same manner as with respect to other Section 45 facilities) during such 10-year period.

Computation of Credit

Under Section 45(e)(8)(A) of the Code, the refined coal production credit is equal to \$4.375 per ton (or, in the case of steel industry fuel, \$2.00 per barrel-of-oil equivalent) of qualified refined coal (i) produced by the taxpayer at a refined coal production facility during the 10-year period beginning on the date the facility was originally placed in service, and (ii) sold by the taxpayer (I) to an unrelated person and (II) during the 10-year period and the tax year. The \$4.375 per ton amount is multiplied by the inflation adjustment factor for the calendar year to adjust for inflation since 1992. The inflation adjustment factor and excess reference price (discussed below) are provided by the IRS by notice published in the Internal Revenue Bulletin. For

2009, the inflation adjustment factor is 1.4171 and the resulting credit amount is \$6.20 per ton for calendar year 2009.

Section 4.01 of the Notice refers to this credit amount as the “tentative credit” and provides rules for a taxable year that is a calendar year and for a taxable year that includes parts of two calendar years. In the former case, the tentative credit for the taxable year is the tentative credit for the calendar year. In the latter case, the tentative credit for the taxable year is the sum of the tentative credits for each partial calendar year included in the taxable year.

The tentative credit is reduced by an amount that bears the same ratio to the tentative credit as the “excess reference price” for the calendar year bears to \$8.75. The “excess reference price” is the amount by which (a) the reference price for the calendar year of fuel used as a feedstock exceeds (b) an amount equal to 1.7 multiplied by \$31.90 and further multiplied by the inflation adjustment factor for the calendar year. For 2009, the excess reference price is \$39.72 per ton and no phaseout of the credit is applicable.

In the case of a facility producing steel industry fuel, the references to the 10-year period in Section 45(e)(8)(A) are changed to refer to the period beginning on the later of the date such facility was originally placed in service, the

date that modifications were made to an existing facility to allow such facility to produce steel industry fuel, or October 1, 2008, and ending on the later of December 31, 2009, or the date that is one year after the date such facility or such modifications were placed in service. No phaseout of the credit applies in the case of a facility producing steel industry fuel.

The tentative credit is reduced by a prescribed percentage if the project received government grants, subsidies or other credits. The reduction percentage for a tax year is the lesser of 50 percent or the percentage that is determined by dividing the sum for the taxable year and all earlier taxable years of the following items listed below by the aggregate additions to the capital account attributable to the project for the taxable year and all earlier taxable years:

- (1) governmental grants received for the project;
- (2) proceeds from tax-exempt state or local government bonds used to finance the project;
- (3) directly and indirectly provided subsidized energy financing under a federal, state or local program in connection with the project and
- (4) any other credit allowable with respect to any property that is part of the project.

Producer Entitled to Credit

Under Section 45(e)(8)(A), the producer of the refined coal is entitled to the refined coal credit. Section 5.01 of the Notice clarifies that the producer is entitled to the credit without regard to whether the producer owns the refined coal production facility in which the refined coal is produced. Accordingly,

a taxpayer that leases or operates a facility owned by another person may claim the credit for refined coal that the taxpayer produces in the facility.

Refined Coal

The term "refined coal" means fuel that (a) is a liquid, gaseous or solid fuel produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock; (b) is sold by the taxpayer (producer), to an unrelated person, with the reasonable expectation that it will be used for the purpose of producing steam; and (c) is certified by the taxpayer as resulting (when used in the production of steam) in a qualified emission reduction (defined below). Refined coal includes steel industry fuel (as defined in Section 45(c)(7)(C)) that is produced and sold after September 30, 2008. Refined coal does not include fuel (other than steel industry fuel) that is produced and sold from a facility placed in service before January 1, 2009, unless such fuel is produced in such a manner as to result in an increase of at least 50 percent in the market value of the fuel (excluding any increase caused by materials combined or added during the production process) as compared to the feedstock coal. This market value test was eliminated by the Energy Improvement and Extension Act of 2008 for facilities placed in service after December 1, 2008.

Coal and Waste Coal

Section 3.02 of the Notice defines "coal" for purposes of Section 45 as anthracite, bituminous coal, subbituminous coal and lignite. The Notice specifically includes "waste coal (that is, usable material that is a byproduct of the previous processing of anthracite, bituminous coal, subbituminous coal or lignite)" in

the definition of "coal." Section 3.02 of the Notice provides as examples of waste coal: fine coal of any of the listed ranks, coal of any of the listed ranks obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob and lignite waste. Special rules apply for waste coal in mining processes (discussed below).

Qualified Emission Reduction

The definition of a "qualified emission reduction" differs depending on whether a refined coal facility was placed in service before or after December 31, 2008. In the case of refined coal produced at a facility placed in service after December 31, 2008, the term "qualified emission reduction" means a reduction of at least 20 percent of the emissions of nitrogen oxide (NO) and at least 40 percent of the emissions of either sulfur dioxide (SO₂) or mercury (Hg) released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003. In the case of production at a facility placed in service before January 1, 2009, a reduction of only 20 percent is required for emissions of SO₂ or Hg. The Energy Improvement and Extension Act of 2008 raised this reduction requirement to 40 percent for facilities placed in service after December 31, 2008.

Section 3.03 of the Notice defines "comparable coal" as, with respect to any feedstock coal, coal that is of the same rank as the feedstock coal and that has an emissions profile comparable to the emissions profile of the feedstock coal.

Section 6.02 of the Notice sets forth the testing procedures for determining emission reductions. The Notice provides that emission reductions are determined by comparing the emissions that result when feedstock coal and refined coal are used to produce the same amounts of useful thermal energy. In other words, the comparison between the coal feedstock and the refined coal is made on an MMBtu basis.

Section 6.03 of the Notice describes two categories of testing methods:

CEMS Field Testing. The emissions reduction may be determined using continuous emission monitoring system (CEMS) field testing. CEMS field testing is testing that meets all the following requirements:

- The boiler used to conduct the test is coal-fired and steam-producing and is of a size and type commonly used in commercial operations.
- Emissions are measured using a CEMS.
- If the EPA has promulgated a performance standard that applies at the time of the test to the pollutant emission being measured, the CEMS must conform to that standard.
- Emissions for both the feedstock coal and the refined coal are measured at the same operating conditions and over a period of at least three hours during which the boiler is operating at a steady state and at least 90 percent of full load.
- Emissions of SO₂ are measured upstream of any SO₂ scrubber.

- Emissions of Hg are measured upstream of any SO₂ scrubber or Hg control device (such as activated carbon injection).
- Emissions of NO are measured upstream of any NO controls.

A verification of the CEMS test results must be provided by a “qualified individual”: (i) someone who is not related (within the meaning of Section 45(e)(4)) to the taxpayer claiming the refined coal credit, (ii) is properly licensed as a professional engineer and (iii) has the requisite qualifications to provide the verification. The verification must contain a statement that the testing satisfied all the requirements above and that the amount of the emissions reduction was determined in accordance with the Notice provisions, declared under penalties of perjury.

Section 6.03(1)(d) of the Notice provides that if CEMS field testing is used to determine the emissions reduction, the IRS will not, on examination, require any additional proof of the emission reduction achieved. The Notice provides further that the IRS may, however, require the taxpayer to establish that the testing used qualifies as CEMS field testing.

Other Testing Methods. Section 6.03(2) of the Notice provides that methods other than CEMS field testing may be used to determine the emissions reduction. However, if a method other than CEMS field testing is used, the IRS may require the taxpayer to provide additional proof that the emission reduction has been achieved. Permissible methods include the following:

- A testing method using a demonstration pilot-scale combustion furnace if it is established that the method accurately measures the

emissions reduction that would be achieved in a coal-fired and steam-producing boiler of a size and type commonly used in commercial operations and a qualified individual (as defined above) verifies the test results (in the same manner described above).

- Laboratory analysis of the feedstock coal and the refined coal. The laboratory analysis must comply with a currently applicable EPA or ASTM standard and may be used only for purposes of determining the emissions reduction for SO₂ and Hg.

Under Section 6.04 of the Notice, a taxpayer may establish that a qualified emissions reduction applies to production from a facility by a determination or redetermination that is valid at the time the production occurs. A determination or redetermination is valid for the period beginning on the date of the determination or redetermination and ending with the occurrence of the earliest of the following events: (i) the lapse of six months from the date of such determination or redetermination; (ii) a change in the type, source or rank of feedstock coal that occurs after the date of such determination or redetermination; or (iii) a change in the process of producing refined coal from the feedstock coal that occurs after the date of such determination or redetermination.

In the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination must use one of the methods described above. In any other case, the redetermination requirement may be satisfied by laboratory analysis establishing that the SO₂ and Hg content of both the feedstock coal and the refined coal do not vary by

more than 10 percent from the SO₂ and Hg content of the feedstock coal and refined coal used in the most recent determination that meets the testing requirements of the Notice.

Coal Cleaning Processes are Excluded

Section 6.01 of the Notice effectively excludes processes employed by a mine owner or operator that are considered part of the mining process. That section provides that a qualified emission reduction does not include any reduction attributable to mining processes or processes that would be treated as mining if performed by the mine owner or operator. Accordingly, in determining whether a qualified emission reduction has been achieved, the emissions released when burning the refined coal must be compared to the emissions that would be released when burning the feedstock coal. Feedstock coal is the product resulting from processes that are treated as mining processes.

Section 6.01(2) of the Notice defines the processes that are treated as mining and includes any process described in Section 613(c)(2), (3), (4)(A), (4)(C) or (4)(I) of the Code, or that would be described in those provisions if performed by the mine owner or operator.

- *Treatment Processes.* Under Section 613(c)(2), mining includes not only the extraction of the ores or minerals from the ground but also the treatment processes considered as mining described in Section 613(c)(4).
- *Waste Coal.* Under Section 613(c)(3), the extraction of ores or minerals from the ground includes the extraction by mine owners or operators of ores or minerals

from the waste or residue of prior mining.

- *Other Processes.* Under Section 613(c)(4)(A), in the case of coal, that cleaning, breaking, sizing, dust allaying, treating to prevent freezing and loading for shipment by a mine owner or operator shall be considered as mining.
- *Sorting and Other Pre-Shipping Processes.* Under Section 613(c)(4)(C), in the case of minerals that are customarily sold in the form of a crude mineral product, sorting, concentrating, sintering and substantially equivalent processes to bring coal to shipping grade and form are considered as mining.
- *Drying.* Under Section 613(c)(4)(I) and Treas. Reg. § 1.613-4(f)(5), drying to remove free water, provided that such drying does not change the physical or chemical identity or composition of the mineral, is treated as mining.
- *Cleaning Processes.* Any cleaning process — such as a process that uses ash separation; dewatering; scrubbing through a centrifugal pump; spiral concentration; gravity concentration; flotation; application of liquid hydrocarbons or alcohol to the surface of the fuel particles or to the feed slurry, provided such cleaning does not change the physical or chemical structure of the coal; and drying to remove free water, provided such drying does not change the physical or chemical identity of the coal — will be considered as mining.

In other words, any process that is considered part of the mining process cannot be considered to produce

a refined coal. Thus, based on the Notice, typical coal washing or cleaning processes that are employed by a mine owner or operator do not qualify.

The Notice identifies two exceptions to this special rule.

- *Excepted Processes.* Section 6.01(2) of the Notice states that Section 613(c)(5) describes treatment processes that are not considered as mining unless they are provided for in Section 613(c)(4) or are necessary or incidental to a process provided for in Section 613(c)(4). These processes include: electrolytic deposition, roasting, calcining, thermal or electric smelting, refining, polishing, fine pulverization, blending with other materials, treatment effecting a chemical change, thermal action, and molding or shaping.
- *Exception for Waste Coal.* Section 6.01(3) of the Notice provides that a cleaning process is not treated as a mining process in the case of refined coal produced from waste coal at a facility placed in service before January 1, 2010, for the primary purpose of producing refined coal from waste coal. Waste coal is defined as the waste materials that are separated through ordinary mining processes during the process of producing a merchantable product from the coal extracted from a natural deposit.

The exception for waste coal above does not apply with respect to the refined coal produced at a facility during a taxable year unless a verification of waste coal supply is available for such facility. The verification must be provided by a “qualified individual” (as defined above). The

verification must contain a statement that the coal to be processed by the facility is waste coal and must be signed under penalties of perjury.

Placed-in-Service Date

In order to qualify for the Section 45 credit, the refined coal production facility must be placed in service within certain timeframes. For purposes of the refined coal credit allowable with respect to steel industry fuel, the facility (or any modification to the facility) must be placed in service before January 1, 2010. For purposes of the refined coal credit allowable with respect to refined coal other than steel industry fuel, the facility must be placed in service after October 22, 2004, and before January 1, 2010. The Notice provides that the year in which property is placed in service is determined under the principles of Treas. Reg. § 1.46-3(d); i.e., when the property is placed in a condition or state of readiness and availability for a specifically assigned function.

Section 5.02 of the Notice confirms the application of the “80/20” test to refined coal production facilities. A refined coal production facility will not be treated as placed in service after October 22, 2004, if more than 20 percent of the facility’s total value (the cost of the new property plus the value of the used property) is attributable to property placed in service on or before October 22, 2004. The Notice also states that the IRS will not issue private letter rulings relating to when a refined coal production facility has been placed in service.

Certification

Under Section 6.05 of the Notice, the certification requirement of Section 45(c)(7)(A)(i) (III) of the Code is satisfied with respect to fuel for which the refined coal credit is claimed only if the taxpayer attaches to its tax return on which the credit is claimed a certification that contains the following:

- A statement that the fuel will result in a qualified emissions reduction

when used in the production of steam.

- A statement indicating whether CEMS field testing was used to determine the emissions reduction.
- If CEMS field testing was not used to determine the emissions reduction, a description of the method used.
- A statement that the emissions reduction was determined or redetermined within the six months preceding the production of the fuel and that there have been no changes in the type, source or rank of feedstock coal used or in the process of producing refined coal from the feedstock coal since the emissions reduction was determined or was most recently redetermined.
- A penalties of perjury declaration signed by the taxpayer.

A copy of [Notice 2009-90](#) is available.