

Internal Revenue Service

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Department of the Treasury
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Third Party Communication: None
Date of Communication: Not Applicable

Person To Contact: _____, ID No.

Telephone Number:

Refer Reply To:

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Date:
March 04, 2015

LEGEND:

- Taxpayer =
- Company A =
- Parent =
- Company B =
- Company C =
- Company D =
- Company E =
- Company F =
- State 1 =
- State 2 =
- Facility =
- Date 1 =
- Date 2 =
- Date 3 =
- Date 4 =
- Year 1 =
- Year 2 =
- Power Plant =
- Location =
- X =
- Y =
- Coal Type 1 =
- Coal Type 2 =
- Coal Type 3 =
- Coal Type 4 =
- Mine 1 =
- Mine 2 =

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Mine 3 =
 Process =
 Process A =
 Process B =
a =
b =
c =
d =
e =
f =

Dear :

This is in response to your request for a ruling, submitted by your authorized representative on September 19, 2014, concerning the federal income tax consequences of the transaction described below. Taxpayer has presented the facts as follows:

Taxpayer Information

Taxpayer is a State 1 limited liability company that is a wholly owned subsidiary of Company A. Taxpayer was formed to lease and operate the Facility. Because Taxpayer has not elected to be classified as an association taxable as a corporation for federal income tax purposes, it is disregarded as an entity separate from Company A for such purposes. Company A, a State 1 limited liability company is indirectly wholly owned by Parent, a State 1 corporation that is the common parent of a consolidated group. Parent uses the accrual method of accounting and has adopted the calendar year as its annual accounting period.

The Refined Coal Production Process

A. The Facility

Taxpayer has entered into an agreement to lease the Facility from Company B for an initial term beginning on Date 2, and ending on Date 3, with automatic renewals for five successive one-year periods, and final renewal period ending on Date 4 (Facility Lease). Company B is wholly owned by Company C. The Facility was designed and constructed by Company C to produce a refined coal product that reduces emissions of nitrous oxide (NO_x) and mercury when burned as a fuel in a coal-fired power plant.

The Facility was placed in service in Year 1 at the Power Plant in Location that is owned by Company D. In Year 2, pursuant to a request from Company D, Company B relocated the Facility from its original location to a different location on the Power Plant site. Except for the original X and Y at the base of the Facility, all of the major

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components of the Facility were removed from the original location and installed at the new location at the Power Plant site. The Power Plant is a coal-fired and steam-producing electric generating plant in regular commercial operation. The Power Plant produces electricity by burning Coal Type 1 in the boilers to heat water and produce steam. The Coal Type 1 burned in the Power Plant is obtained from three State 2 mines: the Mine 1, the Mine 2, and the Mine 3. Taxpayer has entered into a contract with Company D for the sale of refined coal produced by the Facility to Company D for use as a feedstock in the Power Plant.

B. The Process

The technology employed to produce the refined coal in the Facility is known as the Process, which is designed to reduce NO_x and mercury emissions in cyclone coal-fired boilers. The rights to the technology are owned by Company E and licensed to Company C. They have been sublicensed from Company C to Taxpayer for the full term of the lease of Facility from Company B.

The Process involves the use of two separate inorganic chemicals (the “Chemical Reagents”) that are applied to feedstock consisting of a% Coal Type 1. The first Chemical Reagent, referred to as Process A, is a solid material that mixes evenly with the coal’s native ash in power plant boilers and affects the melting properties of the coal’s native ash during combustion in power plant boilers. This allows adjustment of stoichiometric, or air-fuel, ratio in the boiler which reduces oxygen and provides more favorable conditions for reduction of NO_x emissions. The second Chemical Reagent, referred to as Process B, is an inorganic liquid solution which reacts with the mercury in coal, resulting in changes to the chemical form of the mercury, oxidizing more of it. As a result, more of the mercury is captured with the fly-ash in the particulate control equipment, resulting in a higher degree of removal.

The Facility’s equipment transports the Chemical Reagents to a coal conveyor belt, where they are applied evenly to the coal feedstock. The Chemical Reagents are combined with the coal at a rate proportional to the coal flow rate. The application of each Chemical Reagent is controlled separately by computer equipment which determines the rate of application based on the flow rate of the coal on the conveyor belt. The minimum proportion of each Chemical Reagent to be applied per ton of feedstock coal is set based on previously verified emissions test results. The amount of each Chemical Reagent applied per ton of feedstock coal may be increased above, but will not be decreased below, the per-ton amounts of such Chemical Reagents used to produce the refined coal used in the most recent emissions testing.

Emissions Testing

A. Prior Emissions Testing

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In Date 1, before the effective date of the Facility Lease, Company C conducted full-scale emissions tests, using continuous emission monitoring system (CEMS) field testing at the Power Plant, using coal feedstock consisting of approximately b% Coal Type 1 and c% Coal Type 2, and refined coal produced at the Facility from the same coal feedstock. Since the Year 1 emissions tests, Company C and Taxpayer have conducted periodic tests (pursuant to section 6.03 of Notice 2010-54, 2010-2 C.B. 403 (Notice)) using CEMS field testing at the Power Plant using coal feedstock consisting of a% Coal Type 1 and refined coal produced at the Facility from the same coal feedstock.

Each emissions test was conducted in the following manner: To establish a baseline for NO_x and mercury emissions, one unit of the Power Plant was operated for a three-hour period at or above d% of full load using coal feedstock. The same unit was operated for a second three-hour period under the same operating conditions (except for adjustments to primary or secondary air in accordance with good air pollution control practices), using refined coal produced in the Facility using the Process from the coal feedstock and the Chemical Reagents, applied at a predetermined proportion.

During each baseline test and each test using refined coal, NO_x and mercury emissions were measured using CEMS equipment that conforms to applicable United States Environmental Protection Agency (“EPA”) standards. The NO_x CEMS devices were located upstream of post-combustion NO_x emissions controls. The mercury CEMS devices were located upstream of any sulfur dioxide (SO₂) scrubber or mercury control device and downstream of the electrostatic precipitator (ESP), which controls particulate emissions. Each CEMS field test demonstrated a reduction in excess of e% NO_x emissions and a reduction in excess of f% of mercury emissions when burning refined coal produced in the Facility (excluding dilution caused by materials combined or added during the production process) when compared to emissions resulting from burning feedstock coal to produce the same amount of useful thermal energy.

Taxpayer represents that the emission reductions demonstrated in each CEMS field test have been verified by an independent licensed professional engineer experienced in combustion and environmental engineering, as required by the Notice, including verification that the ESP was operated under the same conditions throughout the test period.

B. Redetermination Testing

Taxpayer will conduct additional emissions tests on or before the first to occur of: (i) a change in the Process used to produce refined coal at the Facility, (ii) a change in the source or rank of the feedstock coal used to produce refined coal, or (iii) the expiration of six months since the most recent determination test. If additional testing is conducted due to a change in the Process, Taxpayer will conduct CEMS field testing or use another testing methodology permitted by section 6.03 of Notice 2010-54 or any subsequent applicable IRS guidance (“Determination Test”). Taxpayer anticipates that

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where there has been no change in the Process, it will ordinarily conduct redetermination testing using laboratory analysis establishing that the sulfur and mercury content of both the feedstock coal and the refined coal, on average, do not vary by more than ten percent (10%) below the bottom (nor by more than ten percent (10%) above the top) of the range of the sulfur and the mercury content of the feedstock coal and refined coal used in the most recent Determination Test period.

C. Additive Rate Tests

Parent retained Company F, an independent engineering firm with recognized expertise in coal and emissions from coal-fired power plants, to advise Parent with respect to the effect of increasing the concentration of Chemical Reagents applied in the refined coal production process on the level of emissions reductions. Company F reviewed the results of CEMS emissions testing conducted at five different power plants using refined coal produced from Coal Type 1, Coal Type 3, and blends of Coal Type 1 and Coal Type 4. The refined coal used in the tests was produced in refined coal production facilities leased by subsidiaries of Parent from Company C by applying the Chemical Reagents in various concentrations. Based on Company F's review of those test results, Company F concluded that neither the NO_x emission reduction nor the mercury emission reduction is adversely affected by applying more Chemical Reagents to feedstock coal than necessary to achieve the emission reductions, and that increasing Chemical Reagent application rates generally provides greater emissions reductions.

RULINGS REQUESTED

Based on the foregoing, Taxpayer has requested that we rule as follows:

- 1) Refined coal produced at the Facility using the Process and the Chemical Reagents is "refined coal" within the meaning of section 45(c)(7) of the Internal Revenue Code of 1986, as amended (the "Code"), provided the refined coal (i) is sold to an unrelated person within the meaning of § 45(c)(7) and (ii) meets the emission reduction requirement of § 45(c)(7)(B).
- 2) An increase in the rate of application of a Chemical Reagent per ton of feedstock coal refined is not considered a "change in the process of producing refined coal from feedstock coal" for purposes of section 6.04 of Notice 2010-54.
- 3) The lease of the Facility subsequent to its placed-in-service date will not affect the placed-in-service date of the Facility for purposes of § 45 and will not affect the determination of whether the lessee is eligible for production tax credits ("PTCs") for refined coal produced at the Facility.

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- 4) If the Facility was “placed in service” prior to January 1, 2012, within the meaning of § 45(d)(8)(B), a subsequent relocation and replacement of certain parts of the Facility in Year 2, and any subsequent relocation or modification of the Facility, will not result in a new placed-in-service date for the Facility for purposes of § 45, provided the fair market value of the original property of the Facility is more than twenty percent (20%) of the Facility’s total fair market value at that time.
- 5) The redetermination requirement of section 6.04 of Notice 2010-54 may be satisfied by laboratory analysis establishing that the sulfur and mercury content of both the feedstock coal and the refined coal, on average, do not vary by more than ten percent (10%) below the bottom, or by more than ten percent (10%) above the top, of the range of the sulfur and the mercury content of the feedstock coal and the refined coal used in the most recent test conducted pursuant to section 6.03 of Notice 2010-54.

LAW AND ANALYSIS

Section 45(a) of the Code generally provides a credit against federal income tax for the use of renewable or alternative resources to produce electricity or fuel for the generation of steam. Section 45(e)(8) provides that, in the case of a producer of “refined coal”, the credit available under § 45(a) for any taxable year shall be increased by an amount equal to \$4.375 per ton of qualified “refined coal” (i) produced by the taxpayer at a “refined coal production facility” during the 10-year period beginning on the date that the facility was originally placed in service, and which is (ii) sold by the taxpayer to an unrelated person during such 10-year period and such taxable year.

For purposes of § 45, section 3.01 of the Notice provides that the term “refined coal” means a fuel which -- (i) is a liquid, gaseous, or solid fuel (including feedstock coal mixed with an additive or additives) produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock, (ii) is sold by the taxpayer with the reasonable expectation that it will be used for purpose of producing steam, and (iii) is certified by the taxpayer as resulting (when used in the production of steam) in a qualified emission reduction. Section 45(c)(7) and section 3.04 of the Notice provide that the term “qualified emission reduction” means (1) in the case of refined coal produced at a facility placed in service after December 31, 2008, a reduction of at least twenty percent (20%) of the emissions of nitrogen oxide and at least forty percent (40%) of the emissions of either sulfur dioxide or mercury 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; and (2) in the case of production at a facility placed in service before January 1, 2009, a reduction of at least twenty percent (20%) of the emissions of NO_x and at least twenty percent (20%) of the emissions of either SO₂ or mercury 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

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burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003.

Section 5.01 of the Notice provides that the refined coal credit is allowed for qualified refined coal produced and sold to an unrelated person by the taxpayer, without regard to whether the taxpayer 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.

Section 5.02 of the Notice provides that a refined coal production facility will not be considered to have been placed in service after October 22, 2004, if more than twenty percent (20%) of the total fair market value of the facility (the cost of the new property plus the value of the used property) is attributable to property that was placed in service on or before October 22, 2004.

Section 6.01 of the Notice generally provides that a qualified emissions reduction does not include any reduction attributable to mining processes or processes that would be treated as mining (as defined in § 613(c)(2), (3), (4)(A), (4)(C), or (4)(I)) 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 and are actually applied by a taxpayer in any part of the taxpayer's process of producing refined coal from coal.

Section 613(c)(5) describes treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or any necessary or incidental to a process provided for in § 613(c)(4). 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 removed free water, provided such drying does not change the physical or chemical identity of the coal, will be considered as mining.

Section 6.03(1) of the Notice provides, in part, that emissions reduction may be determined using continuous emission monitoring system (CEMS) field testing. Section 6.03(1)(a) provides, in part, that CEMS field testing is testing that meets all the following requirements: (i) 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; (ii) emissions are measured using a CEMS; (iii) if 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; (iv) emissions for both the feedstock coal and the refined coal

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are measured at the same operating conditions and over a period of at least 3 hours during which the boiler is operating at a steady state at least ninety percent (90%) of full load; (v) a qualified individual verifies the test results in a manner that satisfies the requirements of section 6.03(1)(b).

Section 6.03(2) of the Notice provides that methods other than CEMS field testing may be used to determine the emissions reduction. If a method other than CEMS field testing is used, the Service may require the taxpayer to provide additional proof that the emission reduction has been achieved. The permissible methods include (a) testing using a demonstration pilot-scale combustion furnace if it established that the method accurately measures the emission reduction that would be achieved in a boiler described in section 6.03(a)(a)(i) and a qualified individual verifies the test results in a manner that satisfies the requirements of section 6.03(1)(c)(i), (ii), (v), and (vi) of the Notice; and (b) a laboratory analysis of the feedstock coal and the refined coal that complies with a currently applicable EPA or ASTM standard and is permitted under section 6.03(2)(b)(i) or (ii) of the Notice.

Section 6.04(1) of the Notice provides that a taxpayer may establish that a qualified emission reduction determined under section 6.03 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 source or rank of feedstock coal that occurs after the date of such determination; 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.

Section 6.04(2) of the Notice provides that in the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination required under section 6.04 must use a method that meets the requirements of section 6.03. In any other case, the redetermination requirement may be satisfied by laboratory analysis establishing that – (a) the sulfur or mercury content of the amount of refined coal necessary to produce an amount of useful energy has been reduced by at least twenty percent (20%) (forty percent (40%), in the case of facilities placed in service after December 31, 2008) in comparison to the sulfur or mercury content of the amount of feedstock coal necessary to produce the same amount of useful energy, excluding any dilution caused by materials combined or added during the production process; or (b) the sulfur or mercury content of both the feedstock coal and the refined coal do not vary by more than ten percent (10%) from the sulfur and mercury content of the feedstock coal and refined coal used in the most recent determination that meets the requirements of section 6.03 the Notice.

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Section 6.05 of the Notice provides that the certification requirement of section 3.01(1)(c) is satisfied with respect to fuel for which the refined coal credit is claimed only if the taxpayer attached to its tax return on which the credit is claimed a certification that contains the following: (1) a statement that the fuel will result in a qualified emissions reduction when used in the production of steam; (2) a statement indicating whether CEMS field testing was used to determine the emissions reduction; (3) if CEMS field testing was not used to determine the emissions reduction, a description of the method used; (4) 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 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 determined; and (5) a declaration signed by the taxpayer in the following form: "Under penalties of perjury, I declare that I have examined this certification and to the best of my knowledge and belief, it is true, correct, and complete."

Finally, § 45(d)(8) provides that a refined coal production facility must be placed in service within certain timeframes. 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, 2012. Section 3.07 of the Notice provides that the year in which property is placed in service is determined under the principles of § 1.46-3(d) of the regulations (*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 provides that a refined coal production facility will not be treated as placed in service after October 22, 2004 if more than twenty percent (20%) 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.

With respect to the first two rulings requested, the Process involves blending coal with the Chemical Reagents in a cyclone coal-fired boiler. Section 6.01 of the Notice provides generally that a qualified emission reduction does not include any reduction attributable to mining processes or processes that would be treated as mining, as further defined in the Code, if performed by the mine owner or operator. Section 613(c)(5) describes certain treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or are necessary or incidental to a process provide for in § 613(c)(4). For example, § 6.01(2) provides, in part, that any cleaning process such as the application of liquid hydrocarbons or alcohol to the surface of the fuel particle or to the feed slurry, provided such cleaning does not change the physical or chemical structure of the coal, will be considered mining. In the instant case, the Process is not a mining process. Further, section 3.01 clarifies § 45(c)(7) and specifically provides that refined coal includes feedstock coal mixed with an additive or additives. Thus, additive processes which mix certain chemicals or other additives with

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the coal in order to achieve emission reductions may qualify for the production tax credit for refined coal. Accordingly, we conclude that (a) refined coal produced at the Facility using the Process and the Chemical Reagents is “refined coal” within the meaning of § 45(c)(7), provided the refined coal (i) is sold to an unrelated person within the meaning of § 45(c)(7) and (ii) meets the emission reduction requirement of § 45(c)(7)(B); and (b) an increase in the rate of application of a Chemical Reagent per ton of feedstock coal refined is not considered a “change in the process of producing refined coal from feedstock coal” for purposes of section 6.04 of the Notice.

With respect to the third ruling requested, the placed-in-service language in § 45(d)(8) focuses on the facility, and does not, by its terms, require the facility to have been placed in service by the taxpayer claiming the credit. Section 5.01 of the Notice provides that the refined coal credit is allowed for qualified refined coal produced and sold to an unrelated person by the taxpayer, without regard to whether the taxpayer owns the refined coal production facility in which the refined coal is produced. Therefore, 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. Accordingly, we conclude that the lease of the Facility subsequent to its placed-in-service date will not affect the placed-in-service date of the Facility for purposes of § 45 and will not affect the determination of whether the lessee is eligible for PTCs for refined coal produced at the Facility.

With respect to the fourth ruling requested, § 45(d)(8) generally provides that a “refined coal production facility” means a facility for the production of refined coal that was placed in service after October 22, 2004, and before January 1, 2012. Section 5.02 of the Notice provides that when a facility is placed in service is determined in accordance with § 1.46-3(d) of the regulations. In addition, section 5.02 provides that a refined coal production facility will not be considered to have been placed in service after October 22, 2004, if more than twenty percent (20%) of the total fair market value of the facility (the cost of the new property plus the value of the used property) is attributable to property that was placed in service on or before October 22, 2004. This rule provides a test for determining whether modifications to a facility will result in a new placed in service date. Accordingly, we conclude that if the Facility was “placed in service” prior to January 1, 2012 within the meaning of § 45(d)(8)(B), any subsequent modification or relocation of the Facility will not result in a new placed-in-service date for that Facility for purposes of § 45, provided the fair market value of the original property of the Facility is more than twenty percent (20%) of the Facility’s total fair market value at that time.

With respect to the fifth ruling requested, section 6.04(2) of the Notice provides, in part, that in the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination required under section 6.04 must use a method that meets the requirements of section 6.03. In any other case, the redetermination requirement may be satisfied by laboratory analysis

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establishing that the sulfur and mercury content of both the feedstock coal and the refined coal do not vary by more than 10% from the sulfur and mercury content of the feedstock coal and refined coal used in the most recent redetermination that meets the requirements of the Notice. Accordingly, we conclude the redetermination requirement of section 6.04 of the Notice may be satisfied by laboratory analysis establishing that the sulfur and mercury content of both the feedstock coal and the refined coal, on average, do not vary by more than 10% below the bottom, or by more than 10% above the top, of the range of the sulfur and mercury content of the feedstock coal and refined coal used in the most recent CEMS test or other test that meet the requirements of section 6.03 of the Notice.

This ruling expresses no opinion regarding any issue not specifically addressed in this ruling letter, including (1) whether any person has sold refined coal to an unrelated person, or (2) when the facility was “placed in service.” In particular, we express or imply no opinion that Taxpayer has sufficient risk or rewards of the production activity to qualify as the producer of the refined coal. The Service may challenge an attempt to transfer the credit to a taxpayer who does not qualify as a producer, including transfers structured as partnerships, sales or leases that do not also transfer sufficient risks and rewards of the production activity.

In accordance with the Power of Attorney on file with this office, we are sending a copy of this letter to your authorized representative. A copy of this ruling must be attached to any income tax return to which it is relevant. Alternatively, taxpayers filing their returns electronically may satisfy this requirement by attaching a statement to their return that provides the date and control number of the letter ruling.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Sincerely,

Peter C. Friedman
Senior Technician Reviewer, Branch 6
Office of Associate Chief Counsel
(Passthroughs & Special Industries)

cc: