

Internal Revenue Service

Department of the Treasury

Index Number: 29.01-00

Washington, DC 20224

Number: **200019022**
Release Date: 5/12/2000

Person to Contact:

Telephone Number:

Refer Reply To:
CC:DOM:P&SI:6 PLR-114506-99
Date:
02-11-2000

Re: Section 29 Request for a Ruling; Credit for Producing Fuel From a Nonconventional Source

Partnership A =
Partnership B =
State A =
State B =
State C =
Process =

Dear :

This letter responds to the ruling request of Partnership A, dated August 25, 1999. Two rulings are requested: (1) Partnership A will produce a qualified fuel within the meaning of section 29(c)(1)(C) of the Internal Revenue Code; and (2) If Partnership A's facilities are "placed in service" prior to July 1, 1998, within the meaning of section 29(g)(1), relocation of a facility after June 30, 1998, will not result in a new placed in service date for the facility for purposes of section 29 provided the fair market value of the used property is more than 20 percent of the relocated facility's total fair market value at the time of the relocation.

We understand the facts as presented by Partnership A's authorized representative to be as follows:

Partnership A is a limited partnership formed for the purpose of raising capital to build four facilities for producing synthetic fuel (two facilities in State A, one facility in State B, and one facility in State C). All four facilities were placed in service before July 1, 1998. The general partner will be Partnership B with a 0.1 percent interest and the limited partners are four institutional investors with 99.9 percent of the interests.

Each facility in State B and State C is owned by a separate project limited liability company. The two facilities in State A are owned by the same project limited liability company. All project limited liability companies are owned by Partnership A.

Partnership A may move the facilities to new locations. The facilities were built

PLR-114506-99

in modules. The facilities were intended to be moved, for example, to be closer to feedstock supplies or synthetic fuel purchasers.

Each project limited liability company has a license authorizing it to use a patented process called the Process for converting coal feedstock into synthetic fuel.

According to Partnership A, the Process was developed to upgrade lower-ranked coals and coal waste material by chemically converting them into a synthetic fuel without the need to subject the coal feedstock to high heat (*i.e.*, pyrolysis). Partnership A claims that the chemical reaction yields a fuel that differs significantly in chemical composition from the coal feedstock used to produce it. The Process uses a quinoline-based chemical reagent that reacts with the feedstock in a manner that reduces oxygen content, reduces inherent moisture, makes the coal less reactive, increases volatile matter, and raises the fuel's heating value (Btu content).

The coal feedstock will consist of waste coal, such as "coal pond fines" and coarse coal refuse recovered from "gob" piles, or coal from conventional supply sources that can be significantly upgraded using the Process. Pond fines are small particles of waste coal (usually less than ¼" in diameter) rejected from coal cleaning operations and stored in settling ponds. Pond fines contain significant amounts of recoverable coal, but are difficult to process because of their size and high moisture content. The high moisture content and small particle size of coal pond fines make them unsuitable for use as a fuel or feedstock for carbonization, liquefaction and gasification applications. The Process overcomes these limitations by reducing the moisture content of the feedstock material and chemically bonding it into a useable solid.

The total moisture content of coal includes surface moisture acquired from exposure to moisture in the environment and inherent moisture (also known as "equilibrium moisture") that is ionically (*i.e.*, chemically) bonded to the coal. The Process reagent reacts with the coal structure to produce a chemically active solid that rejects surface moisture. The Process eliminates the ionic bonding between inherent moisture and coal, resulting in synthetic fuel that has a much lower inherent moisture content. By contrast, thermal drying cannot permanently eliminate ionically-bound moisture because thermally-dried coal rapidly absorbs moisture from the air to return the ionically-bound moisture to its original level.

By removing oxygen functional groups, the Process results in a synthetic fuel that has a much lower inherent moisture content. The Process also alters the ionic structure of the surface of the synthetic coal pellet making the synthetic fuel "hydrophobic" (rejects surface moisture) as opposed to coal's natural "hydrophilic" state (attracts surface moisture). Thus, the Process permanently removes inherent moisture from the feedstock material and causes the synthetic fuel to reject surface moisture so that the synthetic fuel produced by the Process maintains its low total moisture content even when exposed to rain or groundwater. Partnership A claims that both of these

PLR-114506-99

effects result from chemical changes to the coal feedstock.

The Process converts the coal feedstock into a synthetic fuel by use of the following five steps: In step one, mineral matter is removed from the coal feedstock and the feedstock is sized to form coal particles no larger than 1/8" in diameter. The coal feedstock is stockpiled next to the fuel production plant. In step two, the prepared coal feedstock is transported from the stockpile to the mixing apparatus using a specially-designed bin and feeder system that can handle high-moisture fine-sized coal. The feeder system controls the rate of delivery of the feedstock to the plant and monitors the feed rate with a weight belt. This system also is equipped with variable feed drivers to maintain accurate control of the feed rate. The weight and moisture content of the feedstock is monitored. Data are fed to a computerized process control system that controls the mixing time and the reagent feed rate.

According to Partnership A, step three of the Process initiates the chemical change by uniformly blending the Process reagent and the coal feedstock in a high-efficiency mixer. The coal feedstock is fed continuously into the reactor (*i.e.*, the mixing apparatus) by the conveyor and feeder system and the Process reagent is fed at a controlled rate and is uniformly mixed with the feedstock. To reduce viscosity, the reagent is heated to 200° F to form an emulsion before it is fed into the reactor. The concentration and rate of feed of the reagent for a given coal feedstock are determined in the laboratory prior to the processing. The reagent dosage is sensitive to the coal rank, particle size of the feedstock, coal structure, and the feed rate of the unprocessed material.

The active reagent in the Process is quinoline and related nitrogen containing compounds. Only a small amount of quinoline is required. To ensure that the reagent is distributed uniformly over the coal, the quinoline is mixed into a much larger volume of a carrier. In the past, Orimulsion, a naturally occurring product, has been imported and used as the carrier.

It was discovered that Orimulsion had a variable composition. For this reason, use of Orimulsion was discontinued. In its place, a domestically-produced, commercially-available asphaltic emulsion is now used. This is a product from the petroleum distillation process, and it tends to have a more consistent composition.

The chemical reaction in the third step continues for 92 hours. Partnership A represents that no heat or pressure is necessary for the chemical reaction to occur. The process works equally well with low- and high-rank coals, as well as waste coals including pond fines of coal ranks. However, the effects are most dramatic with pond fines and low-rank coals because of their high total moisture and oxygen content. In addition, the chemical reaction between the Process reagent and coal feedstock causes the coal to become bonded. Bonding occurs without the use of traditional reforming equipment such as briquetting or pelletizing equipment to form a hard mass.

PLR-114506-99

Step four involves reforming the chemically altered output from the reactor to increase the ease of handling of the final product. The output from the reactor is fed into a reforming apparatus to produce briquettes, pellets or extrusions. Water rejected from the reformed synfuel is collected and drained. Step five involves conveying the synthetic fuel to a curing pile where the desiccation (non-thermal drying) and agglomeration (binding) processes continue until completed in 92 hours. The desiccated synthetic fuel can then be stored or shipped to customers without risk of spontaneous combustion.

Partnership A represents that comparing coal samples before and after the Process reveals significant chemical change. The most significant changes occur in oxygen content, moisture content, and heating value.

RULING REQUEST #1

Section 29(a) of the Code allows a credit for qualified fuels sold by the taxpayer to an unrelated person during the tax year, the production of which is attributable to the taxpayer. The credit for the tax year is an amount equal to \$3.00 (adjusted for inflation) multiplied by the barrel-of-oil equivalent of qualified fuels sold.

Section 29(c)(1)(C) of the Code defines "qualified fuels" to include liquid, gaseous, or solid synthetic fuels produced from coal (including lignite), including such fuels when used as feedstocks.

In Rev. Rul. 86-100, 1986-2 C.B. 3, the Internal Revenue Service ruled that the definition of the term "synthetic fuel" under section 48(l) of the Code and its regulations are relevant to the interpretation of the term under section 29(c)(1)(C). Former section 48(l)(3)(A)(iii) provided a credit for the cost of equipment used for converting an alternate substance into a synthetic liquid, gaseous, or solid fuel. The ruling notes that both section 29 and former section 48(l) contain almost identical language and have the same overall congressional intent, namely to encourage energy conservation and aid development of domestic energy production. Under section 1.48-9(c)(5)(ii) of the Income Tax Regulations, a synthetic fuel "differs significantly in chemical composition," as opposed to physical composition, from the alternate substance used to produce it. Coal is an alternate substance under section 1.48-9(c)(2)(i).

Based on the representations of Partnership A, including the preponderance of proffered data on the significant difference in the chemical composition of the fuel to be produced from that of the coal, the fuel to be produced using the Process will be a solid synthetic fuel from coal within the meaning of Rev. Rul. 86-100 and section 1.48-9(c)(5)(ii) of the regulations. Accordingly, the Process produces a qualified fuel as defined in section 29(c)(1)(C) of the Code.

RULING REQUEST #2

PLR-114506-99

Sections 29(f)(1)(B) and (f)(2) of the Code provide that section 29 applies with respect to qualified fuels which are produced in a facility placed in service after December 31, 1979, and before January 1, 1993, and which are sold before January 1, 2003.

Section 29(g)(1) of the Code modifies section 29(f) in the case of a facility producing qualified fuels described in section 29(c)(1)(C), which qualified fuels include solid synthetic fuels produced from coal or lignite. Section 29(g)(1)(A) provides that for purposes of section 29(f)(1)(B), such a facility is to be treated as placed in service before January 1, 1993, if the facility is placed in service before July 1, 1998, pursuant to a binding, written contract in effect before January 1, 1997. Section 29(g)(1)(B) provides that if the facility is originally placed in service after December 31, 1992, section 29(f)(2) is to be applied by substituting for the date therein January 1, 2008.

While section 29 does not define "placed in service," the term has been defined for purposes of the deduction for depreciation and the investment tax credit. Property is "placed in service" in the taxable year the property is placed in a condition or state of readiness and availability for a specifically assigned function. Section 1.167(a)-11(e)(1)(i) and section 1.46-3(d)(1)(ii) of the regulations. "Placed in service" has consistently been construed as having the same meaning for purposes of the deduction for depreciation and the investment tax credit. See Rev. Rul. 76-256, 1976-2 C.B. 46.

Rev. Rul. 94-31, 1994-1 C.B. 16, concerns section 45, which provides a credit for electricity produced from certain renewable resources, including wind. The credit is based on the amount of electricity produced by the taxpayer at a qualified 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 during the taxable year. Rev. Rul. 94-31 holds that, for purposes of section 45, a facility qualifies as originally placed in service even though it contains some used property, provided the fair market value of the used property is not more than 20 percent of the facility's total value (the cost of the new property plus the value of the used property).

Rev. Rul. 94-31 concerns a factual context similar to the present situation. Consistent with the holding in Rev. Rul. 94-31, the relocation of Partnership A's facilities after June 30, 1998, will not prevent the relocated facilities from continuing to be treated as originally placed in service prior to July 1, 1998, for purposes of section 29 provided the fair market value of the used property is more than 20 percent of the relocated facility's total fair market value at the time of the relocation.

Accordingly, based on the facts as presented by Partnership A and Partnership A's authorized representative, we conclude as follows:

1. Partnership A, with use of the Process in the facilities, will produce a

PLR-114506-99

"qualified fuel" within the meaning of section 29(c)(1)(C) of the Code.

2. If Partnership A's facilities are "placed in service" prior to July 1, 1998, within the meaning of section 29(g)(1) of the Code, relocation of a facility after June 30, 1998, will not result in a new placed in service date for the facility for purposes of section 29 provided the fair market value of the used property is more than 20 percent of the relocated facility's total fair market value at the time of the relocation.

Except as specifically ruled upon above, we express no opinion concerning the federal income tax consequences of the transaction described above. Specifically, we express no opinion on when Partnership A's facilities were placed in service for purposes of section 29, who the partners in Partnership A are, or how the partners' interests in Partnership A are determined.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides that it may not be used or cited as precedent. Temporary or final regulations pertaining to one or more of the issues addressed in this ruling have not been adopted. Therefore, this ruling will be modified or revoked by the adoption of temporary or final regulations to the extent the regulations are inconsistent with any conclusions in the ruling. See section 12.04 of Rev. Proc. 99-1, 1999-1 I.R.B. 6, 47. However, when the criteria in section 12.05 of Rev. Proc. 99-1 are satisfied, a ruling is not revoked or modified retroactively, except in rare or unusual circumstances.

In accordance with the power of attorney on file with this office, the original of this letter is being sent to Partnership A's first-named authorized representative, and a copy is being sent to Partnership A.

Sincerely yours,
CHARLES B. RAMSEY
Branch Chief, Branch 6
Office of Assistant Chief Counsel
(Passthroughs and Special Industries)