Section 29 Tax Credits
for Synthetic Fuel from Coal

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§ 11.01. Introduction.

Section 29 of the Internal Revenue Code provides a credit against federal income tax for producing and selling “synthetic fuel from coal” and certain other qualified fuels. Synthetic fuel from coal, referred to throughout this chapter as “synfuel,” is any fuel which has a chemical

1 Unless otherwise indicated, all section references are to the Internal Revenue Code of 1986 (26 U.S.C.), as amended (the “Code”).
composition significantly different from the coal used to produce it. Because the credit is often worth more than the cost of the feedstock used to produce synfuel, producers can afford to sell synfuel at a discount from market prices for coal even though coal and synfuel may be marketed to the same consumers, and used for the same purposes (primarily as fuel for coal-based electricity generating facilities).

A series of events in the late 1990s helped determine the potential impact of synfuel and the section 29 credit on the traditional domestic coal market. First, the deadline for building a processing facility for synfuel passed, so that new facilities built to process synfuel can not produce a product which qualifies for the credit. Second, the IRS issued a series of favorable private rulings to the owners of existing synfuel facilities on various issues related to claiming the credit. These rulings made large coal and energy concerns more willing to invest in synfuel facilities. Third, the IRS ruled that outside investors can participate in the production of synfuel using a pay-as-you-go structure allowing synfuel facility owners to monetize the tax credit. Finally, utilities began signing significant purchase contracts indicating their willingness to burn synfuel at their coal-based electricity generating facilities.

These developments of the late 1990s, combined with the market advantage sellers of synfuel have over sellers of conventional coal, have recently swept synfuel into a spotlight of cash and controversy. In terms of cash, the credit could yield nearly $10 billion in tax relief to credit investors. As for controversy, a Governor and at least five members of Congress have weighed in publicly on the integrity of the credit. This chapter will explain the history of the section 29 credit and the technical requirements of claiming and calculating the credit specifically with regard
This chapter then will review some of the current synfuel industry practices and perceived problems with the credit. Finally, the chapter concludes with a proposal aimed at ensuring the viability of the section 29 credit for synfuel by narrowing its application to practices more closely related to the original legislative intent.

§ 11.02. Application of the Section 29 Credit to Synthetic Fuel from Coal.

This section of the chapter begins by reviewing the history of the section 29 credit. The legislative history of the credit is significant in light of public speculation that the practical application of the credit with regard to synfuel has deviated from the original purpose of the credit program. This section then outlines the statutory and administrative requirements for claiming the credit for synfuel as well as the actual calculation of the credit value. Finally, this section summarizes the practice of monetizing tax credits.


The legislation that produced section 29 was a product of the weight of the oil crises. One of the first Congressional efforts to encourage new domestic energy technology as a reaction to the oil crisis came in the Energy Tax Act of 1978. The Energy Tax Act of 1978 added new section 48(l) to the Code in effect at the time. Section 48(l) defined “energy property” for purposes of a new credit program to include “alternative energy property.” Under the original definition of alternative energy property, taxpayers were entitled to a credit for expenditures related to “equipment which uses coal (including lignite) as a feedstock for the manufacture of chemicals or other products (other than coke or coke gas).”

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4 The section 29 credit is also available for oil produced from shale and tar sands; gas produced from geopressed brine, Devonian shale, coal seams, or a tight formation; and gas produced from biomass. See I.R.C. § 29(c)(1). However, this chapter focuses exclusively on the section 29 credit as it applies to synfuel.


In addition to the desire to promote investment in this type of technology, one of the Senate Reports leading up to the Energy Tax Act of 1978 had proposed a subsidy for increased production of domestic oil and gas.\textsuperscript{7} Under the Senate proposal, the 1978 legislation would have provided a $3 credit for each barrel of shale oil produced by the taxpayer.\textsuperscript{8}

Although the Senate proposal for a credit based on domestic production of fuel did not make it into the Energy Tax Act of 1978, Congress took up the concept of a credit for alternative energy production again in 1979. Here the overall focus of the legislation was more obviously on reducing reliance of foreign oil. “The committee believes that a tax credit for the production of energy from alternative sources will encourage the development of these resources by decreasing the cost of their production relative to the price of imported oil.”\textsuperscript{9} The list of eligible alternative energy sources deemed suitable for a subsidy was expanded from shale oil and natural gas to include (among others) “liquid, gaseous, or solid synthetic fuel (other than alcohol) from coal liquefaction or gasification facilities.”\textsuperscript{10} Again the credit would be equal to $3 per barrel of oil, and a barrel-of-oil equivalent of 5.8 million Btus was set in order to calculate the credit for those alternative energy sources not measured in barrels.

This time Congress accepted the concept of a $3 credit for barrels or barrel equivalents of certain types of domestically produced fuel. What is now section 29 was designated section 44D when it was first enacted under the Crude Oil Windfall Profit Tax Act of 1980.\textsuperscript{11} Section 44D of the Code in effect in 1980 was re-designated section 29 in 1984 and remains section 29 under the current Code. The calculation of the credit amount as a function of barrel-of-oil equivalency of energy and a $3 multiplier — both concepts

\begin{footnotesize}
\item[10] Id.
\end{footnotesize}
SECTION 29 TAX CREDITS FOR SYNTHETIC FUEL

originally introduced in 1977 — was adopted. However, the references to coal as an eligible credit source had changed from “equipment which uses coal (including lignite) as a feedstock for the manufacture of chemicals” from the Energy Tax Act of 1978 and “liquid, gaseous, or solid synthetic fuel (other than alcohol) from coal liquefaction or gasification facilities” from the 1979 Senate Report, to simply “liquid, gaseous, or solid synthetic fuels produced from coal (including lignite), including such fuels when used as feedstocks” in the 1980 law.  


Section 29 in its final form provides a credit for “qualified fuels produced and sold by the taxpayer to an unrelated person during the taxable year, and the production of which is attributable to the taxpayer.” The definition of qualifying fuels includes “liquid, gaseous, or solid synthetic fuels produced from coal (including lignite), including such fuels when used as feedstocks.” The credit only applies to qualified fuels which, with respect to synfuel, are produced from a facility placed in service before July 1, 1998, pursuant to a binding written contract in effect before January 1, 1997. Finally, if the synfuel is produced in a facility placed in service after December 31, 1992, the credit can continue to be claimed for qualifying synfuel sold through the end of 2007. Unfortunately, the Office of the Chief Counsel of the IRS and the United States Treasury Department have not issued Regulations under section 29. However, each of the statutory requirements mentioned above has been the subject of various IRS rulings and interpretations. Largely

12 The significance of deleting references to using coal to make chemicals and to the liquefaction or gasification of coal are discussed in Section 11.03[1], infra.
13 I.R.C. § 29(a)(2).
14 I.R.C. § 29(c)(1)(C).
16 I.R.C. § 29(g)(1)(B).
these rulings have taken the form of advice given individual taxpayers based on their specific representations of fact. These Private Letter Rulings form the backbone of interpretive material available under section 29 even though they can not be relied upon as precedent to any other taxpayer. The rest of this subsection of this chapter describes how the major elements of the section 29 credit for synfuel have been applied to taxpayers claiming the credit.

[a] — The Unrelated Buyer Requirement.

The credit is based on sales of qualified fuel by the taxpayer to an unrelated person. Under I. R. C. § 29(d)(7), unrelated persons are defined by negative reference to related persons under the regulations describing entities under common control from section 52 of the Code. Businesses which would be deemed under common control under Treas. Reg. § 1.52-1(b)-(d) are therefore related persons for purposes of section 29, and one such business could not derive a section 29 credit by selling synfuel to another such business. In practical terms, if two entities have 50 percent or more common ownership, they are related. This restriction may present structuring challenges for utility companies interested in both claiming the credit and purchasing synfuel for use in making electricity: if the same utility company owns at least half of the entity producing and selling the synfuel and at least half of the entity buying the synfuel, the credit will not be allowed. Many taxpayers have been successful in getting the IRS to privately rule that, based on the use of partnerships formed to own the facilities with unrelated third parties, their ownership structure stands up to the unrelated buyer requirement.

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17 I.R.C. § 6110(k)(3). There are, indeed, a handful of meaningful Revenue Rulings (which do constitute legal precedent) which have been applied to synfuel and which are cited in this chapter. For the most part, however, these Revenue Rulings actually focus on other tax credits and have simply been applied to synfuel within the context of various Private Letter Rulings.


[b] — The Chemical Change Requirement.

In 1986, the IRS determined in what manner coal would qualify for the credit by issuing Revenue Ruling 86-100.\textsuperscript{20} The facts of the ruling involve a taxpayer producing a “viscous, heavy, liquid coal-water mixture that can be used as a substitute for oil.” It was determined that such a mixture did not qualify for the credit. The basis for this decision was that such a mixture did not constitute a “synthetic fuel,” and as such could not be a “liquid, gaseous, or solid synthetic fuel produced from coal,” as that phrase is used in I. R. C. § 29(c)(1)(C). According to the IRS, the reason the coal-water mixture was not a synthetic fuel under section 29 was that such a mixture would not be considered a synthetic fuel under section 48 of the Code.\textsuperscript{21} The IRS reasoned that since the term “synthetic fuel” was used in both sections, the Treasury Regulations issued under I.R.C. § 48(l) were “relevant to the interpretation of the term ‘synthetic fuel’ in section 29(c)(1)(C).”\textsuperscript{22} Under the Regulations applicable to section 48, a synthetic fuel is a fuel which differs significantly in chemical composition, not simply physical composition, from the “alternate substance” used to produce it.\textsuperscript{23} Coal is included in the definition of alternate substances.\textsuperscript{24} The result of the decision to apply the section 48 Regulations to section 29 is that, if the other statutory and administrative requirements are met, synfuel is any coal-based fuel which differs significantly in chemical composition from the coal used to make it.


According to published reports, there are only fifty-two (52) synfuel facilities in existence.\textsuperscript{25} Barring an act of Congress, this number will never

\textsuperscript{21} This portion of section 48 was the product of an amendment to section 48(l) as it originally appeared in the Energy Tax Act of 1978 and provided an investment credit for, among other things, equipment used for converting coal into a “synthetic fuel.”
\textsuperscript{22} Rev. Rul. 86-100, at 3.
\textsuperscript{23} Treas. Reg. § 1.48-9(c)(5)(ii).
\textsuperscript{24} Treas. Reg. § 1.48-9(c)(2)(i).
increase. Under I.R.C. § 29(g), synfuel only qualifies for the credit if it was produced in a facility placed in service prior to July 1, 1998, and if that facility was constructed pursuant to a binding written contract in effect before January 1, 1997. As noted above, these deadlines were extended by amendment four times. However, only fifty-two (52) facilities are believed to have met the statutory deadlines, thereby creating a distinct demarcation in the coal and power industries: those entities which have ownership in synfuel facilities and those which do not. In order for a “have not” to become a “have,” it is no longer possible to simply build a new facility. This subsection of the chapter explains why.

The original intent of creating deadlines for the construction and operation of facilities producing nonconventional fuels was to expedite the process of easing reliance on foreign oil. However, it appears that the efforts at producing synfuel throughout the eighties and early nineties failed to produce an economically viable product, even with the benefit of the credit. As a result, the deadlines were pushed back to allow for the completion of ongoing attempts at developing new technology.

There is no definition of “placed in service” found in section 29. The IRS has consistently advised taxpayers, however, that the use of that term in the contexts of depreciation allowances and the investment tax credit is applicable to the use of “placed in service” in section 29.26 This has the effect of providing that a facility is placed in service in the year in which it is completed to the point where daily operation can begin. This standard is a question of fact, and the prudent synfuel facility developer took care and expense to document the construction process with videos, logbooks, affidavits or, preferably, all three. The IRS has also privately advised taxpayers that the focus of the placed in service deadline is on the physical facility and not on the taxpayer claiming the credit, so that a transferee

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26 See, e.g., Priv. Ltr. Rul. 200016021, which concludes with regard to the placed in service deadline that the taxpayer’s facilities met the deadline if they met the definitional standards for “placed in service” set forth in Treas. Reg. § 1.46-3(d)(1)(ii) (the investment tax credit regulations) and Treas. Reg. § 1.167(a)-11(e)(1)(i) (the depreciation regulations). See also, Priv. Ltr. Rul. 9529019 and Priv. Ltr. Rul. 199939041.
taxpayer does not place the facility in service anew when that taxpayer acquires a previously qualified facility.\textsuperscript{27}

The facts and circumstances to be considered under the placed in service requirement include such things as when the facility received all of the necessary permits for operation, when testing of the facility was completed, when the builder of the facility turned possession and control over to the operator, and when regular operation could begin.\textsuperscript{28}

It is not enough to have met the placed in service deadline of July 1, 1998. In addition, the facility must have been placed in service pursuant to a binding written contract in effect before January 1, 1997.\textsuperscript{29} Again, the idea appears to be that Congress wanted to reduce reliance on foreign oil sooner rather than later. Additionally, the binding contract concept may have been a compromise among members of Congress seeking yet another extension of the placed in service deadline (presumably for developers who were attempting to construct facilities but were facing technical challenges) and those members who believed that no new developers should be given additional time to construct facilities from scratch.

There is little guidance on the technical meaning of “binding contract,” possibly because if a facility was actually constructed it could be presumed that any piece of paper dated prior to January 1, 1997, constituted a binding contract. However, the IRS has privately advised taxpayers that the contract must be binding under state law and can not unreasonably limit damages for breach. If a contract provides for liquidated damages of at least five percent (5\%) of the total contract price, the IRS believes it is binding.\textsuperscript{30}

\textsuperscript{27} See, e.g., Priv. Ltr. Rul. 199904027 and Priv. Ltr. Rul. 200016021. Note how this result seems to contradict the depreciation regulations. For depreciation purposes, “the term ‘first placed in service’ refers to the time the property is first placed in service by the taxpayer, not to the first time the property is placed in service.” Treas. Reg. § 1.167(a)-11(e)(1)(i). If this interpretation were applied to section 29, no facility could be sold to a new taxpayer after July 1, 1998, and still be eligible to produce qualifying synfuel.

\textsuperscript{28} These factors are mentioned in the context of a placed in service determination for depreciation purposes in Revenue Ruling 76-256, 1976-2 C. B. 46. They are elaborated and commented on in Sealy Power, Ltd. v. Comm’r, 46 F.2d 382 (5th Cir. 1995).

\textsuperscript{29} I.R.C. § 29(g)(1)(A).

[d] — Relocation of Synfuel Facilities.

Whether a synfuel facility can be relocated is closely related to the placed in service requirement of section 29(g). As indicated above, the IRS has privately advised taxpayers that the placed in service deadline is tested based on the original usage of the facility rather than the first usage of the facility by the current owner. This advice gives taxpayers comfort that facilities can be sold to other taxpayers who either have a greater need for tax credits, or who have better access to reliable feedstock.

With respect to relocations of synfuel facilities, cautious taxpayers seek reassurance that the process of moving a facility to a new location, and any necessary modifications or upgrades associated with such a move taking place after the passing of the placed in service deadline will not disqualify the facility for the credit. In order to establish some authority on this point, the IRS privately advises taxpayers that the basic rule set forth in Revenue Ruling 94-31, 1994-1 C.B. 16 will apply. Revenue Ruling 94-31 concerns the section 45 credit for electricity produced from certain renewable resources. Section 45 provides a credit based on kilowatt hours produced during the ten-year period beginning when the facility producing the electricity is originally placed in service. Revenue Ruling 94-31 addresses a taxpayer who, after making significant replacements and modifications to electricity generating wind turbines located on a qualifying windfarm, is requesting that the newly-modified turbines be treated as originally placed in service after the modifications so that a new ten-year period of credit eligibility will run.

The IRS ruled in favor of the taxpayer in Revenue Ruling 94-31, finding that the taxpayer could have used up to twenty percent (20%) of “used property” (the components of the wind turbines prior to the replacement and modifications) and still be treated as originally placing in service the modified wind turbines after the date of the modifications. The result is that the taxpayer has a new 10-year period in which to claim

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the section 45 credit. The IRS has applied this logic to section 29, where it is in the taxpayer’s interest to not be deemed to begin a new placed in service date. In the section 29 context, the IRS refers to Revenue Ruling 94-31 for the proposition that upon the relocation of a synfuel facility, so long as the value of any “used property” is more than twenty percent (20%) of the value of the facility after the relocation, the original placed in service date will still apply.\textsuperscript{32} In other words, if the costs of relocating a synfuel facility do not exceed eighty percent (80%) of the fair market value of the facility after relocation, a facility placed in service before July 1, 1998, will still be deemed placed in service before that date regardless of the relocation.\textsuperscript{33}

[e] — The Sunset Provision and the Price of Oil Phase-out.

Synfuel producers can claim the credit only for synfuel sold before January 1, 2008.\textsuperscript{34} This sunset provision has the effect of impacting the pricing of any synfuel facility acquisition. Unless a selling facility owner is so burdened with debt obligations that it is willing to sell for a price determined by those obligations, almost any facility transaction will be priced according to projections of potential credits. This means that facility asking prices should decrease throughout the remaining life of the credit,

\textsuperscript{32} Priv. Ltr. Rul. 199904027.

\textsuperscript{33} It is certainly within the discretion of the IRS to enforce section 45 in a manner that allows significant modifications to constitute new facilities for purposes of that credit. However, it is a logical non sequitur to reason that (A) since facilities which are at least eighty percent (80%) new are considered different facilities from their predecessors, then (B) all facilities which are less than eighty percent (80%) new are the same facilities as their predecessors. It is clear that the wind farmer in Revenue Ruling 94-31 could have used ninety percent (90%) new property and received the benefit of a new placed in service date; should this mean that the cost of relocating a synfuel facility may be ninety percent (90%) of the value of the relocated facility without being penalized with a new placed in service date under section 29? The IRS would argue against the premise, but to do so the IRS would have to make a rule specific to section 29, an action which seems unlikely based on the last twenty years of activity.

\textsuperscript{34} I.R.C. § 29(g)(1)(B).
so that any facility sold at the end of 2006 will be priced based on the projected credit value of one year of synfuel production.

An often overlooked element to the credit is the price of oil phase-out. The amount of the credit may be reduced as the price of oil rises. This phase-out is based on the inflation adjusted reference price of oil. Each year the Secretary of the Treasury is required to estimate the annual average wellhead price per barrel for all domestic crude oil.\footnote{I.R.C. § 29(d)(2)(C).} If this price exceeds $47.00 in 2000 (more precisely, $23.50 adjusted for inflation since 1979), the credit is reduced. If this price were to reach $59.00 ($29.50 before the adjustment for inflation), the credit would be eliminated entirely.\footnote{I.R.C. § 29(b)(1).} The idea behind the price of oil phase-out is that if domestically produced oil becomes incredibly expensive, domestic producers of alternative fuels will no longer need a subsidy in order to make their fuels economically viable products.


The credit amount is the product of the inflation-adjusted credit multiplier and the barrel-of-oil equivalent measure of synfuel.\footnote{I.R.C. § 29(a).} The credit multiplier, which was $3 in 1980, is adjusted annually for inflation.\footnote{I.R.C. § 29(b)(2).} The Office of Assistant Chief Counsel of the IRS publishes a notice, usually in late April or early May, announcing the inflation adjustment factor applicable to the prior calendar year based on the GNP implicit price deflator with 1979 as the base year.\footnote{See, e.g., Notice 99-18, 1999-16 I.R.B. and Notice 98-28, 1998-1 C.B. 1001 setting the inflation adjustment factor applicable to calendar years 1998 and 1997, respectively. I.R.C. § 29(d)(2)(A) obliges the Secretary of the Treasury to first publish the inflation adjustment factor in the Federal Register no later than April 1. The IRS notice usually comes out about a month later.} Taxpayers claiming the section 29 credit therefore can not precisely calculate the value of the credit until after the year of the sale generating the credit. Due to inflation, the credit multiplier for synfuel sold in 1999 is $6, exactly double the original value.
multiplier. Note however, that the credit multiplier was $6.12 for synfuel sold in 1998, and the $0.12 decline in the credit multiplier (owing to a recalibration of the GNP implicit price deflator) may have taken credit investors off guard.

Coal is typically marketed by the ton, and the heat content of marketable coal is measured in Btus per pound. This makes for a fairly straightforward section 29 credit calculation. First, a taxpayer will determine the Btu content of the synfuel sold during the year. Second, the taxpayer must convert the Btus per pound into Btus per ton. Third, the taxpayer will multiply the Btus per ton by tons of qualifying synfuel sold. Fourth, the taxpayer divides by 5.8 million to determine the barrel-of-oil equivalent of synfuel sold. Finally, the taxpayer multiplies by the inflation-adjusted credit multiplier to produce the dollar value of the credit.

Note that the market value of 500,000 tons of 12,000 Btu coal in 1999 would have been approximately $11,290,000 based on an average market price of $22.58 per ton. Assuming even modest profits for conventional coal producers at 1999 market prices, those producers who were eligible for the credit could essentially double the market value of their product by subjecting it to a chemical change and claiming a credit of $12,413,792. The value of the credit, less the synfuel producer’s cost of producing a chemical change would theoretically be all profit.

41 The Btus on which the credit calculation is based can not include additional heat added by any additive or binder used in the process creating the chemical change producing the synfuel. I. R. C. § 29(d)(5). In reality, the Btu content of synfuel produced over the course of the year will vary depending on the Btu content of the coal feedstock and other factors, and the taxpayer will have to sample the synfuel and keep detailed records in order to verify the claim of the credit.
42 For example, if the taxpayer sold 500,000 tons of 12,000 Btu synfuel in 1999, the dollar value of the credit would be 12,000 Btus per pound, multiplied by 2,000 pounds per ton, multiplied by 500,000 tons, divided by 5.8 million Btus per barrel equivalent, and multiplied by $6, or $12,413,792.
43 Average market price for 1999 based on average of 52 week range of prices for 12,000 Btu Central Appalachian coal as reported in Coal Daily, Jan. 3, 2000, at 1.
44 See Section 11.02[4], infra, for an example of the methods used by synfuel producers to turn tax credits into cash.
Assuming some degree of efficiency in the fossil fuel marketplace, however, the reports that utility consumers of coal and synfuel are successful in negotiating discounts from the market price for synfuel in comparison to coal are probably accurate. If so, a synfuel producer’s profit is calculated as the profit achievable on producing coal, plus the value of the section 29 credit, less the cost of achieving the credit, less any market discount demanded by synfuel consumers.


Monetizing tax credits is the practice of shifting the benefit of a credit from one taxpayer to another taxpayer who, for differing reasons, finds the credit more valuable than the taxpayer whose actions or status trigger the credit. The transferor of the credit exchanges part or all of the value of the credit to the transferee in return for some form of consideration. Sophisticated institutional investors from various industries regularly pursue creative opportunities to legally acquire the benefit of federal tax credit programs.45

As a simplified example of a monetization scheme, consider Taxpayer A, who is entitled to a $1 credit against federal income tax for the year, but who anticipates having no federal income tax liability. Consider also Taxpayer B, who anticipates that its federal income tax liability for the year will be $10. Taxpayer B may be willing to pay Taxpayer A $0.85 in return for the benefit of the $1 credit. After the transaction, Taxpayer A has generated $0.85 in new revenue, and Taxpayer B has reduced its tax liability by $1 at a cost of just $0.85. Taxpayer B will finish the year with an additional $0.15 in after-tax income.

Taxpayer B’s willingness to enter into such a monetization scheme, and the price Taxpayer B will pay per dollar of tax credit, varies according to the risk of the enterprise generating the credit, the soundness of the

45 Institutions with significant federal income tax liability are said to have large “tax credit appetites.” Since many smaller businesses are pass through entities for federal income tax purposes, and since corporations in many industries tend to find ways to mitigate their tax liability under Subchapter C of the Code, entities with large credit appetites are often household name companies in highly profitable industries such as the financial services industry.
monetization practice and the identity of Taxpayer A. Often, in order to monetize a tax credit it is necessary to form a partnership or some other entity jointly owned between the taxpayer originally entitled to the credit and the taxpayer with the credit appetite. In some cases, Taxpayer B may be willing to pay in excess of $1 for a $1 tax credit if the additional tax benefits to forming such a partnership (such as depreciation on partnership assets) combined with the credit result in increased after tax income.

The section 29 credit for synfuel is particularly ripe for monetization. The section 29 credit is a non-refundable tax credit, meaning that it can only be used to offset regular federal income tax liability; it can not be used to generate a refund. Additionally, the section 29 credit can not be used to offset alternative minimum tax. Many of the original synfuel facility owners were either coal producers or entrepreneurial developers of new technology. In either case, it is unusual for these parties to have significant taxable income. Although coal producers may be profitable, deductions for depletion and other tax items often reduce federal income tax liability to zero. Similarly, the original entrepreneurs involved in the synfuel industry were typically new businesses without regular sources of taxable income. In either scenario, these parties have no use for non-refundable tax credits because, without large amounts of taxable income, tax credits are valueless.

A second reason the section 29 credit for synfuel is so provocative to tax credit investors is the magnitude of the credit in proportion to the enterprise generating the credit. Assuming a reasonable rate of inflation, the average value of the credit through 2007 could be $25 per ton of synfuel. If a particular synfuel facility were capable of producing one million tons of synfuel per year, it is easy to see why tax credit investors are anxious to form alliances with synfuel producers.

§ 11.03. Perceived Problems and Section 29 “Loopholes.”

This section of the chapter focuses on the perceived problems with section 29. In summary, the problems perceived with regard to the credit

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are perceived by those not eligible to claim the credit. This includes coal producers who have to compete with synfuel being sold to utilities at a discount from conventional coal pricing. It also includes at least one foreign government which feels threatened by a federal subsidy of coal which may result in domestically produced coal being sold abroad at below market prices. The perceived problem in a general sense is the creation of an enormous federal subsidy for a limited number of domestic coal producers. In a more specific sense, the perceived problem is the lack of a credible definition of synfuel for purposes of the credit, and the alleged practices of the industry which take advantage of that shortcoming.

[1] — Significant Chemical Change or Meaningless Chemical Change?

Recall that the definition of qualifying synfuel as a fuel which differs in chemical composition from the coal used to produce it comes from the findings under Revenue Ruling 86-100 that the Treasury Regulations under section 48(l) should be applicable to section 29 with regard to synthetic fuel. However, section 48(l) originally provided a credit for equipment which uses coal to manufacture chemicals, and the legislative history of section 29 itself contemplates coal liquefaction and coal gasification. Therefore, basing qualification for synfuel under section 29 on a chemical change, without requiring liquefaction or gasification, vastly broadens the definition of “synthetic fuel.” The end result of Revenue Ruling 86-100 is that, assuming the placed in service requirement and the other requirements are met, a producer can claim the credit for subjecting coal to any process which yields a chemical change, regardless of the effect of that chemical change.

Revenue Ruling 86-100 makes specific reference to coal liquefaction and gasification:

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48 See, discussion of Canadian response to synfuel at § 11.04, infra.
49 Because the synfuel must be sold in order to claim the credit, there is a practical restriction that the chemical change can not have a negative impact on the marketability of the fuel, but in theory the chemical change could detract at least somewhat from the
The Code and regulations recognize that a synthetic fuel is the result of substantial chemical change. Coal liquefaction and gasification processes, which were discussed in the congressional reports [to the Energy Act of 1978 and therefore in reference to what became section 48(l) of the Code], are examples of processes that involve substantial chemical changes. Coal liquefaction and gasification processes are chemical processes that use pressure, heat, and the addition of hydrogen to change substantially the chemical composition of coal into substances that are chemically similar to oil or natural gas or noncoal-like solids.\textsuperscript{50}

However, nowhere else in the authority issued by the IRS with regard to synfuel is it implied that the chemical change must yield either a gas or liquid fuel, or that the solid fuel produced must be “noncoal-like.” In fact, were the solid synfuels required to be noncoal-like in any fashion, it is unlikely that highly regulated utilities, which are the consumers of synfuel, would be able to purchase it. To the contrary, it is likely that coal brokers initially were forced to market synfuel by saying that it is essentially the same fuel as coal.


As in any competitive industry, the country’s major coal producers and their utility company customers do not make all of their strategic plans available for public scrutiny. Given the growing controversy surrounding synfuel, practices in the synfuel sector of the coal industry are often undertaken with as little public fanfare as possible. What data is available on the synfuel industry and its practices may come from a public company’s required Securities and Exchange Commission disclosures,
or from reports in various coal industry daily and weekly publications. In order to introduce the perceived practices in the industry, it is necessary to rely on these periodicals.

[a] — Beneficiation; Briquetting and Pellatizing.

There are many different technologies and processes which have been used to produce synfuel. Early synfuel processes were centered on expensive beneficiation efforts. Developers sought to use the credit dollars to improve the energy qualities of low Btu coal which is plentiful in the western United States. Later developers decided that the subsidy could be utilized to make the recovery of waste coal or pond fines an economically viable endeavor. Waste coal is typically found around mine sites and consists of coal matter which is too small to be handled or which is mixed with non-coal material in a way that makes it too difficult to separate. Pond fines are the small coal particles which fill coal refuse ponds around coal mines. Waste coal and pond fines can be acquired at very little cost because they are valueless in the market. Developers believed that, due to the low acquisition cost and the high value of the credit, waste coal and pond fines could be subject to the relatively expensive processes necessary to transform it into a marketable product in a manner that would still be profitable.

This theory led to the construction of facilities which make synfuel pellets or briquettes. Coal recovered in this manner is often too small or too wet to be transported, handled and burned. Thus, developers constructed machinery which would heat and dry the feedstock, and then press it into pellets or briquettes which could be loaded on barges, trucks or trains for shipment to customers. Either by design or as a happy coincidence, many of these processes utilized chemical binders which when subject to the heating, drying, pellatizing or briquetting, resulted in a substantial chemical change.

Although the recovery of waste coal or pond fines has an external environmental benefit, the careful reader of Section 11.02 knows that there is no statutory or administrative requirement that a process benefit the environment in order to produce qualifying synfuel. This realization tempted many producers into turning their backs on expensive processes such as recovery of pond fines. If a chemical change can be effected without

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forming pellets or briquettes, why go to the added expense of doing so? Usually the answer to this question was that, in practical terms, pond fines subjected to a chemical change alone still could not be handled and transported. One possible solution to handling problems would be to blend the synfuel with untreated coal which was already in a state ready for transport and consumption by utilities. Such a blend would have the dual benefit of good handling with the extremely low cost of synfuel production.

[b] — Use of Run-of-Mine Coal.

Once producers began to realize that forming pellets or briquettes from waste coal and pond fines often outweighs the savings of using these low cost sources, they began to explore using regular, run-of-mine coal as synfuel feedstock after first receiving favorable rulings from the IRS. The key imperative to this philosophy is producing a chemical change for as low a cost as possible.

[c] — Metallurgical Coal as a Synfuel Feedstock.

Metallurgical coal is extremely high Btu coal which is used in the production of steel. Although this high-grade coal is more expensive, it would theoretically be the ideal feedstock for synfuel. This is true because the credit is based on Btus. It does not appear that the IRS has had occasion to consider the application of the credit to metallurgical coal. If it did, one can wonder whether the use of coal in this manner is the same as the use of coal as a fuel; in other words, to the extent metallurgical coal is a component of a product rather than a fuel used to produce energy, it may be considered inappropriate for a credit for producing “fuel.”

[3] — The Original Intent of the Section 29 Credit.

There are at least two schools of thought regarding the original intent of the credit. Some would propose a strict construction of the legislative history and determine that the credit was intended to foster the development of entirely new domestic energy sources. Others would offer a more

general rationale: that the credit is a tax expenditure targeted at decreasing reliance on foreign oil by subsidizing domestic energy production in almost any form. It would be challenging to prove either school of thought to be more correct. However, if the credit is intended to subsidize domestic production of some of the more conventional sources of energy, like coal, it seems particularly unfair to not extend the placed in service deadline once again so that all of the members of the coal and energy industries can begin claiming the credit.

§ 11.04. Efforts for Change and Author’s Proposal.

This section of the chapter highlights some of the efforts, recently publicized, to effect a change in the regulatory regime surrounding section 29. Specifically, Governor Paul Patton of Kentucky and Representative Rick Boucher of West Virginia have written publicly-disclosed letters to federal officials requesting change and exposing what they believe to be abusive taxpayer practices associated with the credit. Canadian coal producers have reportedly sought World Trade Organization condemnation of the application of section 29 to synfuel as a possible unfair export subsidy. At the same time, a pro-synfuel coalition has formed and at least two Congressmen have launched a campaign in favor of the status quo.

Congressmen Rick Boucher, Barbara Cubin and Scott McInnis signed a four page letter dated July 20, 2000, issued to the Commissioner of the IRS and the assistant secretary of the Treasury Department regarding synfuel. Each of the politicians represents a coal producing state, Boucher is from Virginia, Cubin from Wyoming and McInnis from Colorado. Their letter identifies the “brazen” practice of bypassing pelletization and briquetting in favor of applying a binding agent as a spray to produce a chemical change. They propose eliminating this technique of producing synfuel by instituting a two-prong test. Under the first prong, the process used by the taxpayer must add “appreciable value to the original material.” Under the second prong, the taxpayer must establish that the feedstock or [sic] synfuel would not be marketable

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52 Coal Outlook, August 14, 2000, at 1.
without the benefit of the credit.\textsuperscript{53} It may be a drafting error to require that either the feedstock or the synfuel would not be marketable without the credit because it opens the possibility of using a marketable feedstock apparently in conflict with the Congressmen’s main fault with the credit.

Governor Paul Patton of Kentucky likewise issued a letter dated July 20, 2000, critical of the current application of the credit.\textsuperscript{54} Gov. Patton’s letter referred to his understanding of the original intent of section 29, and argued that the practical applications of the credit which he was aware of did not have the effect of fostering domestic production of energy. Specifically, this letter states that the application of a chemical change to coal which is already in a marketable state fails to increase the supply of domestically produced fuel.

It has also been reported that Canadian coal producers Fording Coal and Luscar Ltd. have enlisted the Coal Association of Canada in petitioning the Canadian minister of international trade Pierre Pettigrew to charge the United States with unfair trade practice. The intent of the action would be to end the “unfair subsidy [section 29] and reversing the credits already provided to U.S. exporters.”\textsuperscript{55}

On the other side of the issue are 11 synfuel companies which have formed the Council for Energy Independence. This group hopes to promote the benefits of section 29 with respect to synfuel.\textsuperscript{56} Ironically, one of the published positions of the Council for Energy Independence is that the credit will help enable increased exports of coal.

It has also been reported that Rep. Dave Camp of Michigan, has written to the IRS to encourage the status quo, particularly with respect to the issuance of private letter rulings. This letter was a reaction to Rep. Camp’s impression that the IRS had slowed the process for ruling on issues such

\textsuperscript{54} Letter from Gov. Paul Patton, to United States Treasury Secretary Lawrence Summers (July 20, 2000)(on file with author).
\textsuperscript{55} \textit{Coal Outlook}, August 14, 2000, at 12.
\textsuperscript{56} \textit{Coal Outlook}, September 18, 2000, at 1.
as the ability to relocate a facility in light of the July 20, 2000, letter from Rep. Boucher, et al.\textsuperscript{57} Finally, Rep. David Phelps has weighed in with a letter of support indicating that producers should receive the return they expected on investments in synfuel facilities. His letter also cites a benefit to residential electricity consumers in the form of lower energy costs, and actual improvement in the handling of synfuel over the coal feedstock used to produce it.\textsuperscript{58}

At the present time it is unclear what action, if any, will be taken with respect to the enforcement and interpretation of the credit. Sophisticated credit investors are aware that the private letter rulings on which they have based their investments are subject to revocation for changes in the law or for changes in the way the IRS enforces the law.\textsuperscript{59} It is presumed that all contractual agreements between synfuel producers, synfuel consumers and synfuel credit investors contain provisions contemplating the effect of a change in the awarding of the credit.

It does seem, however, that some of the allegations with respect to the credit would make good fodder for an expose on corporate tax abuse. This risk is so great that it seems logical that even the producers of synfuel would seek a refinement of the credit which would ensure the continued life of the program while eliminating some of the more controversial elements to its enforcement. This refinement could take the form of a Revenue Ruling focusing on the characteristics of the feedstock used to produce the synfuel. Although there is nothing in the statute elaborating on the eligible coal feedstock, there is likewise nothing in the statute requiring a chemical change. It would not be unreasonable for the IRS to reexamine the legislative history and make a determination that using

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\item \textsuperscript{57} Id., at 11.
\item \textsuperscript{58} Id.
\item \textsuperscript{59} Rev. Proc. 2000-4, 2000-1 I.R.B. 4, describes the guidelines the IRS currently uses for issuing ruling letters and the correct procedure for requesting such a letter. It also outlines the binding nature of Private Letter Rulings, and the limitations thereto. Specifically, Section 12 describes the effect of a Private Letter Ruling and the circumstances when a taxpayer can no longer rely on a previously issued Private Letter
\end{itemize}
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marketable feedstock fails to encourage domestic energy production. Requiring the use of unmarketable feedstock, such as pond fines or waste coal, would result in the use of an otherwise untenable domestic energy source. This is basically what Rep. Boucher proposed in his letter.

§ 11.05. Conclusion.

Section 29 is having a tangible impact on the domestic coal industry. It has generated controversy by subsidizing the production of conventional coal subjected to a chemical change for a limited number of coal producers and by increasing the profits of a limited number of utility companies. It is within the authority of Congress to legislate tax expenditures and create subsidies, but the long-term viability of a program which benefits some taxpayers to the exclusion of similarly situated taxpayers can not be strong. If those companies currently reaping the rewards of section 29 for synfuel desire to continue receiving the credit through 2007, it seems likely that they will reposition their lobbying efforts to strike a compromise between the current enforcement and one which can be more easily supported in the public eye.

Ruling. A Private Letter Ruling is in essence a predetermination of how the IRS will determine a taxpayer’s tax liability with regard to a particular issue. If the IRS determines that certain conditions are met (e.g., the representations on which the Private Letter Ruling was based were accurate), then the IRS is bound to apply the Private Letter Ruling when examining the taxpayer’s return. According to Rev. Proc. 2000-4, a Private Letter Ruling may be revoked by the IRS in reaction to new legislation, the issuance of new regulations by the IRS, the issuance of other types of administrative guidance by the IRS such as a Revenue Ruling, or a decision of the United States Supreme Court. If a lower federal court makes a ruling which is contrary to the position taken by the IRS in a Private Letter Ruling, the IRS would not be compelled to revoke the Private Letter Ruling. However, the IRS would be authorized to do so by simply changing its own position in accord with the ruling of the court. This seems particularly likely if the ruling of the court was favorable to the IRS such as a judicial ruling finding a credit program to be unlawful.