

INTERNAL REVENUE SERVICE
NATIONAL OFFICE TECHNICAL ADVICE MEMORANDUM

November 26, 2003

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CASE-MIS No.: TAM-163777-03, CC:PSI:B07

District Director:

Taxpayer's Name:
Taxpayer's Address:

Taxpayer's Identification No
Years Involved:
Date of Conference:

ISSUE:

Whether the conclusion of Taxpayer's experts that there is a statistically significant chemical change from the feedstock coal to Taxpayer's synthetic fuel, as reflected in a comparison of FTIR spectra, is based on sound scientific procedures.

CONCLUSION:

In this request for Technical Advice, after consideration of all of the information on the record and after consultation with appropriate experts, we conclude that although we do not now believe that the processes implemented by Taxpayer produce the level of chemical change required by section 29(c)(1)(C), nevertheless, Taxpayer's experts' conclusion that there is a statistically significant chemical change from the feedstock coal to Taxpayer's synthetic fuel, as reflected in a comparison of FTIR spectra, is based on sound scientific procedures if the procedures are applied in a consistent and unbiased manner. Accordingly, the conclusions reached by Taxpayer's experts were not unreasonable and Taxpayer may continue to rely on the conclusions reached in the private letter rulings. Consistent with Announcement 2003-70, Taxpayer should

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observe the sampling, testing, and record/data retention practices enumerated therein in order to demonstrate that the test procedures used by Taxpayer to show chemical change have been applied in a consistent and unbiased manner.

FACTS:

Taxpayer operates synthetic fuel facilities at two sites. Taxpayer has requested and received private letter rulings from the Internal Revenue Service with regard to the facilities. The private letter rulings concluded that the process that Taxpayer implements at the facilities results in a “qualified fuel” for purposes of section 29(c)(1)(C) of the Internal Revenue Code. The conclusion in the ruling was based on Taxpayer’s submission of a report in which an expert in the chemistry of coal concluded that Taxpayer’s process effected a significant chemical change to feedstock coal in the formation of a synthetic fuel product.

Taxpayer’s expert based the conclusion on the analysis and interpretation of data obtained from complex and sophisticated analytical procedures. These procedures included a form of infrared spectroscopy (FTIR) and thermo-gravimetric analysis (TGA).

IRS examiners have questioned the conclusions of Taxpayer’s expert. The examiners have questioned both the manner in which Taxpayer’s expert implemented the analytic procedures and the manner in which the data derived from those procedures was manipulated and analyzed. The examiners have provided documentation of these concerns in the form of an expert report that reaches an opposite conclusion from that presented by Taxpayer’s expert. Taxpayer has, in turn, documented Taxpayer’s concerns with the examiners’ expert’s report and has supplemented the record with statements from additional experts in the chemistry of coal and statistics.

In the event that we reach a conclusion that is adverse to Taxpayer, the examiners have requested that we consider the revocation of Taxpayer’s private letter ruling.

LAW AND ANALYSIS:

Evidence derived from FTIR provided the principal basis for both Taxpayer’s expert’s conclusions and those of the expert who provided a report to the examiners. Both experts looked to evidence from TGA as support for the conclusions based on FTIR. There are numerous areas in which the experts disagreed. These included the appropriate use of an internal standard to normalize FTIR spectra, the appropriate techniques for base line correction of spectra, the selection of absorption peaks and integration points for analysis of differences between spectra, and the appropriate use of statistics to evaluate differences between spectra.

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Both Taxpayer and the examiners have made detailed presentations of their evidence and conclusions. In evaluating the opposing arguments, this office has sought the assistance of independent experts in the use of FTIR and TGA in determining the nature of chemical change.

We note that during the time that this request for Technical Advice has been under consideration, the Internal Revenue Service has completed a review of the scientific validity of test procedures and results that have been presented as evidence of chemical change by members of the synthetic fuels industry. As evident in Announcement 2003-70, the Service believes that the processes approved under its long standing ruling practice and as set forth in Rev. Proc. 2001-30, as modified by Rev. Proc. 2001-34, 2001-1 C.B. 1293, do not produce the level of chemical change required by section 29(c)(1)(C) and Rev. Rul. 86-100, 1986-2 C.B. 3. Nevertheless, because taxpayers who have received rulings have relied on the Service's ruling position in making their investments, Announcement 2003-70 indicates that the Service will continue to adhere to the ruling position in cases where taxpayers are identically situated.

While Announcement 2003-70 indicated that the test procedures and results used by taxpayers to show chemical change are scientifically valid if the procedures are applied in a consistent and unbiased manner, the Announcement stated that the Service has continuing concerns regarding the sampling and data/record retention practices prevalent in the synthetic fuels industry. Accordingly, taxpayers will be required to (i) maintain sampling and quality control procedures that conform to ASTM or other appropriate industry guidelines at their synthetic fuel production facilities, (ii) obtain regular reports from independent laboratories that have analyzed the synthetic fuel produced in such facilities to verify that the coal used to produce the fuel undergoes a significant chemical change, consistent with prior ruling practice, and (iii) maintain records and data underlying the reports that taxpayers obtain from independent laboratories including raw FTIR data, and processed FTIR data sufficient to document the selection of absorption peaks and integration points.

CAVEAT(S):

A copy of this technical advice memorandum is to be given to Taxpayer. Section 6110(k)(3) of the Code provides that it may not be used or cited as precedent.