



What's News in Tax

The LCM Method and the Petrochemicals Industry

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This article examines the effect of a recent decline in the price of raw materials on the petrochemicals industry, focusing on use of the lower-of-cost-or-market method to value inventory, including a discussion of procedural and tax technical issues. While this article focuses on the petrochemicals industry, it may be equally applicable to industries involving other raw materials that experienced significant price reductions in the fourth quarter of 2008.

Background

Petrochemical companies (and other companies that utilize petroleum- or natural gas-based chemicals) may have experienced a significant decline in raw material prices throughout 2008—most notably in the fourth quarter of 2008. These price reductions are often reflected in a company's inventory reserve balance, which often is not deducted for tax purposes. The reserve is, in many cases, due to the use of either a standard costing system or the rolling average method (as contemplated by Revenue Procedure 2008-43¹), which tends to mitigate the impact of significant fluctuations in costs. In other instances, the demand for products has fallen significantly as petrochemicals customers hold off making purchases in anticipation of a further decline in the price of goods.

Industry Overview

Petrochemicals are chemicals made from petroleum and natural gas. Products such as crude oil and natural gas are the most commonly used raw materials because of their relative low cost, availability, and the ease in which they can be processed into primary petrochemicals. Petrochemical intermediates and derivatives are by-products resulting from a chemical conversion of primary petrochemicals to form more complicated derivative products.

¹ Rev. Proc. 2008-43, 2008-30 I.R.B. 186.

The importance of this industry and its products should not be underestimated. Primary petrochemicals, intermediates, and derivatives produced by the petrochemicals industry can be found in a variety of products. These include paint, paper, and textile coatings; PVC piping; and various synthetic rubber and plastic products. Thus petrochemicals can be associated with many industries, such as food, clothing, housing, transportation, and others.

LCM: GAAP versus Tax Rules

For federal income tax purposes, companies using the first-in, first-out accounting method may value their inventories using either the cost or the lower-of-cost-or-market (“LCM”) method of accounting. However, the LCM rules for tax differ considerably from those established under generally accepted accounting principles (“GAAP”). For example, for federal income tax purposes, there is a distinction between (and different set of rules for) “normal” goods, “subnormal” goods, and inactive markets. Moreover, in normal conditions, the term “market” is generally defined for federal income tax purposes as replacement cost or reproduction cost, whereas “market” is defined as net realizable value for GAAP purposes.

Tax Technical Issues

LCM Method

There are a variety of tax technical issues in the application of the LCM method. For example, in determining “cost,” one may need to determine whether all of the cost elements are taken into account such as material, labor, and overhead, including the uniform capitalization provisions. It is also necessary to determine if the costing system is appropriate. For example, if the rolling average method is used, is it in compliance with Revenue Procedure 2008-43?

Moreover, there are also a variety of issues associated with the definition of “market” such as the use of “replacement” or “reproduction” cost. For manufactured goods, the term “market” is defined by the Treasury regulations as the current bid price at the inventory date for the basic elements of the cost of goods produced by the taxpayer.² Under this definition, it would seem that the “market” value of manufactured goods is equivalent to the cost a taxpayer would incur to purchase the same raw materials plus the labor and overhead costs (including the uniform capitalization provisions) that would be needed to duplicate

² Treas. Reg. § 1.471-4(a)(1).

the goods (*i.e.*, reproduction costs). However, use of replacement cost as the market value of manufactured goods has been allowed as well. Replacement cost is simply the cost to replace goods via purchase, even though such goods are normally manufactured by the taxpayer rather than purchased from third parties.³ Although there is contention over which method for determining market value is appropriate, some believe that the IRS favors the use of replacement cost for determining market value.

As a practical matter, if there is a significant drop in the cost of raw materials used to manufacture goods, the taxpayer should consider using a “reproduction cost” approach for determining market value. Thus it may be relatively easy to substitute the market price of raw materials for those previously used in the manufacturing process. If there is a drop in the demand for goods, taxpayers should consider using a replacement-cost approach for determining market value. It may be that by looking to the prices of a competitor’s goods to determine replacement cost, a taxpayer could avail itself of the benefit that results from decreased market prices when compared to higher prices paid for raw materials previously used to manufacture the goods in inventory.

Exceptions to LCM

It should be noted that there are exceptions to the tax rules that require taxpayers to use either replacement or reproduction cost to determine the market value of inventory under the LCM method. One exception, which is discussed in section 1.471-2(c), relates to subnormal goods. That section of the Treasury regulations provides that “[a]ny goods in inventory which are unsalable at normal prices or unusable in the normal way because of damage, imperfections, shop wear, changes of style, odd or broken lots, or similar causes, including second-hand goods taken in exchange, should be valued at bona fide selling prices less direct cost of disposition.” Valuation for subnormal goods under section 1.471-2(c) can be used regardless of whether normal goods are valued under the cost or LCM method. The bona fide selling price for purposes of valuing subnormal goods is the actual offering price of goods during a period ending not later than 30 days after inventory date (end of year).

In addition to the subnormal goods exception under section 1.471-2(c), taxpayers can also write down inventory that is deemed to be wholly worthless or completely obsolete. Requirements for claiming a write-down for obsolete goods are similar to those under section 1.471-2(c); however, under the holding in *Queen*

³ See G.C.M. 9401, X-1 C.B. 102 (1931).

City Woodworks & Lumber Co.,⁴ there is no need to offer the goods for sale at a reduced price.⁵

Tax Procedural Issues

Automatic Accounting Method Change

Given the recent update to the tax rules governing accounting method changes, to the extent that a company has not historically applied the LCM method for tax purposes, it may now be possible to apply automatically for a change in method. Section 21.11(1)(a) of the appendix to Revenue Procedure 2008-52⁶ provides that “a taxpayer that wants to change from one permissible method of identifying and valuing inventories to another permissible method of identifying and valuing inventories” may avail itself of the automatic change provisions in the revenue procedure. Although section 21.11 of the appendix does not explicitly indicate that the revenue procedure applies to a taxpayer that wishes to change its method of accounting from the cost method to the LCM method, such a change is implied by the language in section 21.11(1)(b) of the appendix. Because both the cost and LCM methods of valuing inventory are specifically permitted by the Treasury regulations, both methods are deemed permissible, and a taxpayer may use the automatic provisions of Revenue Procedure 2008-52 to effect this type of change in accounting method, barring any limitations in scope. Careful consideration should also be given to ensuring that the present method of accounting is permissible.

Timing Considerations

Accounting method changes filed automatically under Revenue Procedure 2008-52 must be filed by the earlier of (1) the actual date of filing or (2) the extended due date of the federal tax return for the year for which the method change is to be effective. The original change request, on Form 3115, *Application for Change in Accounting Method*, must be attached to the taxpayer’s timely filed income tax return, including extensions. A copy of the Form 3115 must be sent to the IRS National Office no earlier than the first day of the year of change and no later than when the original Form 3115 is timely filed with the federal income tax return for the year of change.

⁴ *Queen City Woodworks & Lumber Co. v. Crooks*, 7 F. Supp. 684 (D. Mo. 1934).

⁵ See also *Wilson Furniture Co. v. Commissioner*, 10 B.T.A. 1294 (1928); *Superior Motor Parts Co. v. Commissioner*, 8 B.T.A. 407 (1927).

⁶ Rev. Proc. 2008-52, 2008-36 I.R.B. 587.

Scope Limitations

In addition to the deadline for filing an automatic accounting method change, Revenue Procedure 2008-52 sets forth certain scope limitations that would prohibit a taxpayer from availing itself of the automatic procedures. In particular, taxpayers should be aware of sections 4.02(1), dealing with taxpayers under examination; 4.02(4), dealing with taxpayers that engaged in a transaction to which section 381(a) applies during the proposed tax year of change; and 4.02(7), dealing with taxpayers that previously filed a request to change the same method of accounting during any of the five tax years ending with the year of change. There are additional scope limitations contained in section 4 of Revenue Procedure 2008-52 that taxpayers should also be aware of; however, the scope limitations discussed above have historically been most relevant.

Tax Systems and Documentation Issues

Generally, the IT systems and documentation maintained by companies using LCM for financial statement purposes tend to provide better support for the LCM computation for GAAP purposes. As such, it is equally important to consider the practical application of the tax LCM rules in the context of a particular company's IT systems and processes for gathering and maintaining contemporaneous documentation. For example, computational issues may arise in incorporating revised raw material prices into corresponding work-in-process and finished goods; and modification of IT systems may, therefore, be required to isolate replacement or reproduction costs going forward (subsequent calculations); and processes may need to be refined to substantiate and document costs as of the inventory date (*e.g.*, direct evidence versus vendor lists versus commodities prices, etc.)

Given the litany of cases in which the IRS has disputed a taxpayer's inventory valuation under both the replacement cost and reproduction cost methods, it is important that the appropriate systems and process be in place to facilitate adequate substantiation if a valuation method other than cost is used.

Conclusion

It is important to recognize that, for purposes of the LCM, tax rules differ substantially from financial statement rules, and therefore a separate analysis must be performed. In performing a tax analysis, there are a number of tax technical,

procedural, and documentation issues that should be addressed to help determine that any write-down taken under the LCM rules is properly substantiated.

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