ISSUE

Is the capitalized cost of unrecoverable precious metal that is used in various manufacturing processes depreciable under §§ 167 and 168 of the Internal Revenue Code?

FACTS

**Situation 1.**  A is a contract jeweler who fabricates jewelry to customers’ specifications using gold supplied by the customers. A does not maintain an inventory of gold or completed jewelry, but to assist customers A fabricates and maintains gold sample jewelry showing currently available styles. A’s samples are not held for sale. Every 3 years A melts down the sample jewelry, recovering 100 percent of the gold content of the jewelry. For A’s purposes, the recovered gold is indistinguishable from gold that has not previously been used in sample jewelry and A reuses it in fabricating new sample jewelry. A capitalizes the cost of the gold into the basis of its sample jewelry.
Situation 2. B is a petroleum refiner. As part of its refining process, B uses a catalyst called prills, fabricated from platinum and other chemicals. Based upon engineering studies performed by B, B determines that approximately 10 percent of the platinum initially utilized to fabricate prills is lost over the course of the platinum’s reasonably expected useful life in the refining process. The remaining 90 percent of the platinum is recoverable and becomes available to B for other uses. B capitalizes the cost of the platinum.

Situation 3. C manufactures flat glass using the float manufacturing process. This process involves the use of molten tin, which provides the ideal surface to manufacture high-quality, flat glass. During the manufacturing process, the tin declines in purity and volume due to chemical reactions and vaporization. Additional tin is added as needed to maintain the level required for the production of the glass. After approximately 7 years, all of the original tin is lost due to chemical reactions and vaporization. C capitalizes the cost of the initial tin installed in the tin bath.

LAW

Section 167(a) provides as a depreciation deduction a reasonable allowance for the exhaustion and wear and tear (including a reasonable allowance for obsolescence) of property used in a taxpayer's trade or business.

Section 1.167(a)-1(a) of the Income Tax Regulations provides that the depreciation allowance is that amount that should be set aside for the taxable year in accordance with a reasonably consistent plan (not necessarily at a uniform rate), so that the aggregate of the amounts set aside, plus the salvage value, will, at the end of the
estimated useful life of the depreciable property, equal the cost or other basis of the property.

Section 1.167(a)-1(b) provides that for the purpose of § 167, the estimated useful life of an asset is not necessarily the useful life inherent in the asset but is the period over which the asset may reasonably be expected to be useful to the taxpayer in its trade or business or in the production of his income. This period is determined by reference to the taxpayer’s experience with similar property taking into account present conditions and probable future developments.

Section 1.167(a)-2 provides that the depreciation allowance in the case of tangible property applies only to that part of the property which is subject to wear and tear, to decay or decline from natural causes, to exhaustion, and to obsolescence.

Section 1.168(a)-1(a) provides that § 168 determines the depreciation allowance for tangible property that is of a character subject to the allowance for depreciation provided in § 167(a) and that is placed in service generally after December 31, 1986. See § 1.168(a)-1(b). Accordingly, tangible property to which § 1.168(a)-1(a) applies is property that is of a character subject to the allowance for depreciation provided in § 167(a) if the taxpayer shows that the property is subject to exhaustion, wear and tear, or obsolescence, and that the property has a determinable estimated useful life.

ANALYSIS

An asset is depreciable for federal income tax purposes to the extent that the taxpayer can show that the asset is subject to exhaustion, wear and tear, or obsolescence, and that the asset has a determinable estimated useful life. See O'Shaughnessy v. Commissioner, 332 F.3d 1125 (8th Cir. 2003), aff'g in part, rev'g in
part, 2002-1 U.S.T.C. ¶ 50,235, 89 A.F.T.R. 2d 658 (D. Minn. 2001) (allowing depreciation for tin that declined in volume and purity as a result of glass manufacturing process); Arkla, Inc. v. United States, 765 F.2d 487 (5th Cir. 1985), cert. denied, 475 U.S. 1064 (1986) (allowing investment credit and depreciation for unrecoverable cushion gas but not for recoverable cushion gas); Rev. Rul. 97-54, 1997-2 C.B. 23 (adopting the reasoning of Arkla, supra). In O'Shaughnessy, the Eighth Circuit allowed the taxpayer to depreciate the initial installation of molten tin used in the float manufacturing process of flat glass. The Eighth Circuit concluded that whether an asset is depreciable for federal income tax purposes depends on the taxpayer’s showing that the asset is subject to exhaustion and wear and tear. The Eighth Circuit reasoned that the tin's decline in volume and purity as a result of its use in the glass manufacturing process constituted “exhaustion, wear and tear” within the meaning of § 167, and therefore, the taxpayer appropriately depreciated the tin under § 168. In reaching its decision, the court concluded that Rev. Rul. 75-491, 1975-2 C.B. 19 (holding that the initial installation of molten tin used in the float manufacturing process of flat glass is not depreciable), was no longer persuasive insofar as the ruling predated a substantial restructuring of the depreciation rules upon which its holding was based.

O'Shaughnessy, Arkla, Inc., and Rev. Rul. 97-54 require a fact-specific analysis of the extent to which precious metals used in various manufacturing processes are subject to exhaustion, wear and tear, or obsolescence (in other words, the extent to which precious metals are recoverable or unrecoverable) for determining whether such precious metals are depreciable under §§ 167 and 168. Accordingly, determining whether and the extent to which an asset is depreciable is based on an examination of
the specific facts relating to the asset’s use in a taxpayer’s trade or business and whether the asset has a determinable estimated useful life. This analysis departs from the analysis previously used in Rev. Rul. 90-65, 1990-2 C.B. 41, as corrected by Announcement 91-15, 1991-5 I.R.B. 49, and Rev. Rul. 75-491.

Rev. Rul. 90-65 and Rev. Rul. 75-491 distinguished the treatment of a precious metal that remains available to the owner but is consumed in production from a material such as “line pack gas” or “cushion gas,” which is lost for any other potential use upon its initial installation into a facility (with the facility itself being a depreciable asset). Rev. Rul. 75-491 held that the initial installation of molten tin used in the float manufacturing process of flat glass is not depreciable property. The ruling recognized that, although a portion of the initial tin is consumed in the manufacturing operation, the remaining portion is undiminished in value and once restored to its original level (by adding additional quantities during the year) is property that is “essentially the same that existed at the beginning of the year.” Accordingly, the ruling concluded that the initial installation of molten tin was not depreciable and that the cost of tin consumed during the year in the production of the glass was deductible under section 162, subject to being included in inventory as a production cost.

Rev. Rul. 90-65 amplified the holding of Rev. Ruling 75-491 by clarifying that the principles of Rev. Rul. 75-491 apply not only when a recoverable element is used in its natural state, but also when an economically recoverable precious metal is fabricated into items of property used in the taxpayer’s trade or business. Specifically, Rev. Rul. 90-65 held that if an economically recoverable precious metal is fabricated into items of property used in the taxpayer’s trade or business and the cost of that metal is more than
half the cost of the property, the cost of the metal is nondepreciable and is accounted for separately from the item into which it is fabricated.

The analyses in Rev. Rul. 75-491 and Rev. Rul. 90-65 are inconsistent with Arkla, Inc. and Rev. Rul. 97-54, which require an analysis of the specific facts surrounding an asset’s use in a taxpayer’s trade or business when determining whether and the extent to which an asset is depreciable. In addition, Rev. Rul. 75-491 and Rev. Rul. 90-65 have been supplanted by more recent authorities such as O'Shaughnessy. Accordingly, this revenue ruling adopts the factual analysis approach as applied by those later authorities. Further, because the factual analysis approach permits depreciation of initial installations of certain precious metals, it is no longer relevant whether the cost of those initial installations is more than half the cost of the overall fabricated property.

In Situation 1, the gold used to manufacture sample jewelry can be recovered and reused by A in A’s trade or business in a manner that is indistinguishable from other gold that has never been fabricated, used, and recovered. The utility of the gold does not diminish as a result of its having previously been fabricated into sample jewelry. Accordingly, the gold is not subject to exhaustion, wear and tear, or obsolescence and as a result, is not depreciable.

In Situation 2, approximately 10 percent of the platinum is lost over the course of its expected useful life and is not recoverable for reuse. Accordingly, approximately 10 percent of the platinum will undergo exhaustion, wear and tear, or obsolescence over a determinable useful life. To the extent that the platinum will be lost and is not recoverable for reuse (i.e., approximately 10 percent of the total amount), B may
depreciate the capitalized cost of such platinum under §§ 167 and 168. To the extent that any of the platinum is recoverable for reuse (i.e., approximately 90 percent of the total amount), B may not depreciate the capitalized cost of such platinum.

In Situation 3, all of the original tin used in the glass manufacturing process is lost due to chemical reactions and evaporation after about 7 years. Thus, all of the original tin will undergo exhaustion, wear and tear, or obsolescence over a determinable useful life. Therefore, C may depreciate the capitalized cost of all the entire original tin under §§ 167 and 168.

HOLDING

The capitalized cost of unrecoverable precious metals that are used in various manufacturing processes is depreciable under §§ 167 and 168 of the Code. The capitalized cost of any recoverable precious metal is not depreciable under §§ 167 and 168.

APPLICATION

Any change in a taxpayer's treatment of the cost of precious metals to conform with this revenue ruling is a change in method of accounting that must be made in accordance with §§ 446 and 481, the regulations thereunder, and the applicable administrative procedures. See section 6.01 of Rev. Proc. 2015-14, 2015-5 I.R.B. 450 (or successor guidance). The amount of the § 481(a) adjustment must account for the proper amount of the depreciation allowable that is required to be capitalized under any provision of the Code (for example, § 263A) as of the beginning of the year of change.

EFFECT ON OTHER DOCUMENTS

Rev. Rul. 75-491 is revoked.
Rev. Rul. 90-65 is revoked.

DRAFTING INFORMATION

The principal author of this revenue ruling is Douglas H. Kim of the Office of Associate Chief Counsel (Income Tax and Accounting). For further information regarding this revenue ruling, contact Mr. Kim at (202) 317-7005 (not a toll-free call).