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VALUATION OF MACHINERY AND EQUIPMENT CONSTRUCTION IN PROGRESS (CIP)

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Introduction

When it comes to the ad valorem tax values of Construction in Progress (CIP), specifically personal property, many taxpayers and assessors provide only a cursory review of the general ledger account. Rarely do people "dig into" the composition and makeup of the CIP accounts to determine the appropriate value and basis. The purpose of this paper is to discuss a proactive and comprehensive plan for taxpayers to work with assessors to reduce the overall, and often overstated, values of CIP personal property.

Definitions

As a general matter, below are definitions relevant to the discussion of CIP valuation:

- Construction in Progress (CIP) – "Property that is in a process of change from one state to another, such as the conversion of personal property from inventory to fixed asset by installation or the conversion of personalty to realty by becoming a fixture." Glossary for Property Appraisal and Assessment, pp. 29-30 (IAAO 1997) or "includes projects under construction that have not been completed or capitalized." Valuing Machinery and Equipment, (VME) p. 31 (ASA 2000).
- Personal Property – "Personal property consists of movable items not permanently affixed to, or part of, the real estate and is commonly known as "personalty" or "chattels". "Glossary for Property Appraisal and Assessment, p. 9 (IAAO 1997).
- Real Property (also known as Realty) – "Real property refers to the interest, benefits, and rights inherent in the ownership of physical real estate." Glossary for Property Appraisal and Assessment, p. 9 (IAAO 1997).
- Exemptions – "Exemptions are items, transactions or activities that otherwise meet the definition of what is subject to the tax, but are not subject to that tax because they are

specifically noted within the statutes, regulations, and/or rulings as not being subject to taxation or, in other words, are specifically identified as being 'exempt' from the tax." Sales and Use Taxation, p. 27 (IPT 2004).

- Abatements – An abatement is generally a diminishing or elimination of the tax on a property, provided for by statute and often used as an inducement to spur construction development or installation of machinery & equipment. The foregoing of taxes by certain criteria for a specified period of time.
- Value-in-Use – "Value-in-use is the amount, expressed in dollars, that the property is worth to the user and may be based on the item's capability of producing a product or part of a product as a measured percentage of profit." Appraising Machinery and Equipment, p. 168 (American Society of Appraisers, (ASA) 1989).
- Value-in-Exchange – "Value-in-exchange is the value that a typical buyer, in a typical market would pay for equipment that will have to be removed and reinstalled. This value is based on comparison to other substitute goods and services in a competitive market." Appraising Machinery and Equipment, p. 168 (American Society of Appraisers, (ASA) 1989).
- Indirect Costs (also known as Soft Costs or Intangibles) – "Expenditures or allowances for items other than labor and materials that are necessary for construction, but are not typically part of the construction contract. Indirect costs may include administrative costs; professional fees; financing costs and the interest paid on construction loans; taxes and the builder's or developer's all-risk insurance during construction; and marketing, sales, and lease-up costs incurred to achieve occupancy or sale." The Dictionary of Real Estate Appraisal, p. 145 (4th ed. 2002).

Classification

General ledger accounts often improperly classify construction in progress costs associated with real and personal property. This misclassification can result in erroneous reporting of CIP on property tax renditions. Taxpayers should be diligent in the accurate accounting of CIP costs. Proper classification can lead to favorable statutes and regulations pertinent to the taxing jurisdiction. There are approximately 9 states (DE, HI, IA, IL, MN, ND, NJ, NY, and PA) that do not tax personal property. Ohio is in the process of phasing out taxing M&E. In such states, the classification of CIP as personal property allows the taxpayer a lifetime of relief from ad valorem taxes. In those states where personal property is taxable and depreciation tables are utilized, the personal property distinction of CIP results in annual depreciation that accelerates the trending and minimizes the overall tax liability. A test for determining whether an asset is classified as real or personal property is provide below.

Common law factors

Many state courts enumerate factors to be considered when determining whether certain assets annexed to land or buildings are real or personal property. The Pennsylvania Supreme Court established a test in 1931, which remains the law today, to determine whether an object constitutes "real estate" under the General County Assessment Law: "Chattels used in connection with real estate are of three classes: First, those which are manifestly furniture, as distinguished from improvements…; these always remain personalty. Second, those which are so annexed to the property that they cannot be removed without material injury to the real estate or to themselves; these are realty, even in the face of an expressed intention that they should be considered personalty….Third, those which, although physically connected with the real estate, are so affixed as to be removable without destroying or materially injuring the chattels themselves, or the property to which they are annexed; these become part of the realty or remain personalty, depending upon the intention of the parties at the time of annexation; in this class fall such chattels as boilers and machinery affixed for the use of an owner or tenant but readily removable." Clayton v. Lienhard, 312 Pa. 433, 436, 167 A. 321, 322 (1931).

The Connecticut Supreme Court's test focuses on the objectively manifested intent of the annexor as of the date when the property is attached. Connecticut courts also consider "the character of the annexation, the nature and the adaptation of the article annexed to the uses and purposes to which [the realty] was appropriated at the time the annexation was made, and the relation of the party making it to the property in question, that a permanent accession to the freehold was intended to be made by the annexation of the article." Waterbury Petroleum Products, Inc. v. Canaan Oil and Fuel Co., Inc., 193 Conn. 208, 216, 477 A.2d 988 (1984). But see Connecticut Performing Arts, Inc. v. City of Hartford, 1999 Conn. Super. Lexis 1976 (stage, seats and monitors in concert venue are real property).

It is possible that CIP can be both personal *and* real. As between landlord and tenant, it may be treated as personalty as a matter of contract. Yet the assessor may treat it as part of the real estate based on assessment law or custom. Many lease agreements have provisions concerning responsibility for payment of taxes. If a tenant improves the real estate with trade fixtures or leasehold improvements, it may be advantageous to have CIP classified as personal property so that the tenant will enjoy the benefits of annual depreciation. If, however, the landlord is responsible for the payment of real estate taxes, it may be in the tenant's best interest to have the CIP classified as real estate. Furthermore, if the tenant is one of many and tenants pay their pro rata share of taxes, it may be advantageous to have CIP classified as real estate so that all of the tenants (depending on the language of the lease agreements) will be required to share pro rata in the real estate assessment increase attributable to one tenant's improvements.

Exemptions

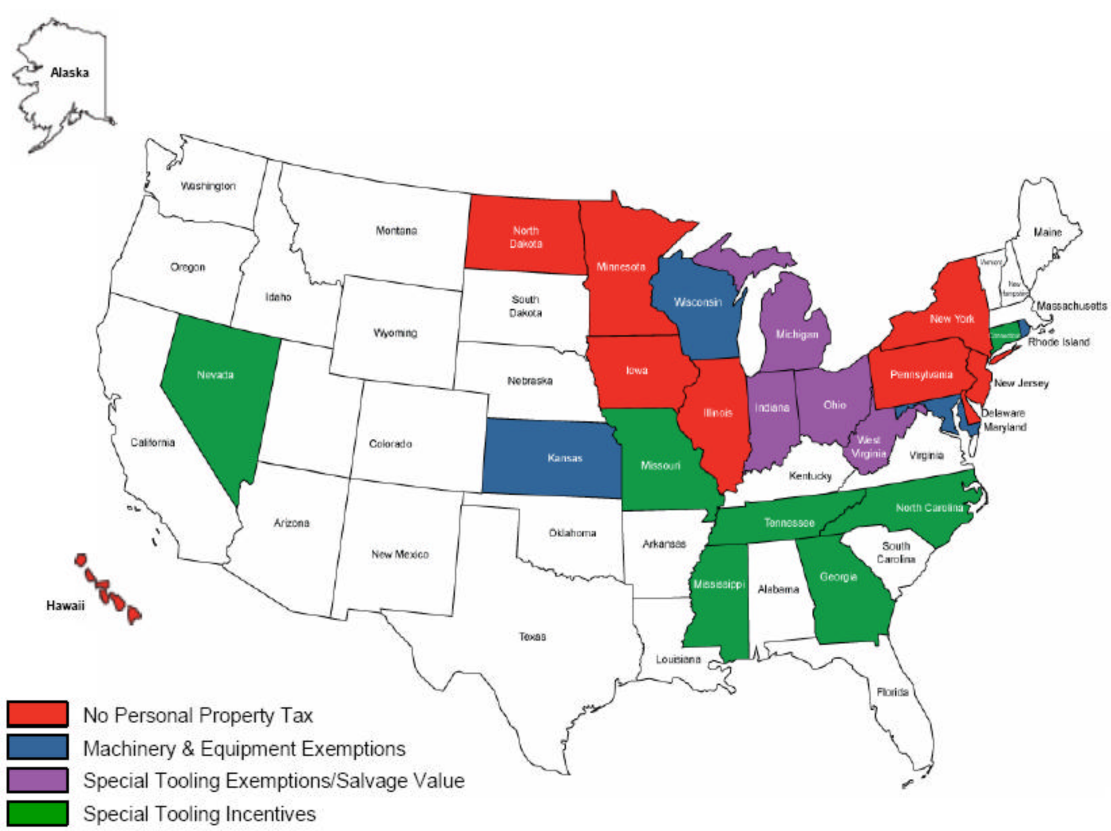
Exemptions are expressed in several ways, including explicitly, as exceptions to the definition of a taxable asset, or as exclusions from a taxable category. Exemptions may be granted on the basis of the nature of the asset, the type of transaction, or the nature of the entity. Certain states allow statutory exemptions for new machinery and equipment used in specific industries, such as manufacturing (MD, KS, OH, RI, and WI). Typically, the property owner has the burden to prove entitlement to exemption within the statutory exemption category. In some cases, like special tools, the exemptions extend to personal property but perhaps not real property. The classification of CIP has a direct effect on the eligibility of such exemptions when the assets are placed into service.

Many states, especially in cases of economic development packages, offer incentives in the form of abatements which allow the taxpayer to forego the payment of taxes by meeting certain criteria for a specified period of time. Often, even though the abatement is included and approved in the tax incentive package, the taxpayer must submit an abatement application. In some cases, the exemptions extend to personal property but perhaps not real property. The classification of CIP has a direct effect on the eligibility of such exemptions when the assets are placed into service. In addition, the taxpayer needs to be aware of when the state will begin the abatement calculation. Beginning the abatement calculation while in CIP and not placed in service can result in a shorter time frame in which the abatement is recognized.

In many jurisdictions, the real and personal property assessors are different offices. The two separate offices may often assess construction in progress as real and personal property which results in double taxation. The taxpayer should pay close attention to the assessments to insure that the real property assessment does not capture assets, in particular personal property in the CIP account(s), already reported on the personal property return. Of course, the taxpayer wants to promote the most advantageous classification and treatment.

For example, in certain states, like Connecticut, newly (not necessarily new) acquired machinery and equipment is eligible for exemption for a defined period of time after installation. Connecticut General Statutes §12-81(72). In other states, tools, implements, machinery and manufacturing apparatus are exempt from personal property taxes if used in manufacturing. If large pieces of machinery or equipment are classified as real estate during construction, they may not be eligible for exemption when placed into service. An example would be assets such as presses, dryers, pulpers and couch rolls found in paper mills. The buildings housing these assets typically are built around the machinery and equipment which is installed on extensive concrete flooring and foundations. Once installed, there is little reason to move the assets unless the mill is disassembled. In Maine, for instance, paper mills are defined as real property and would not be eligible for the machinery and equipment exemptions available in Connecticut and Maryland.

Personal Property Classification by State



Fair Market Value

Once proper classification and its benefits have been established, the taxpayer can now focus on the taxing jurisdictions. The property tax is an ad valorem tax on tangible personal property measured by the property's market value on a specified date. Most states utilize a market-value concept to tax property on the basis of its market value, synonymous name, or statutory definition. The market value concept is the "value at which the property would change hands between a willing buyer and willing seller, both knowledgeable of all relevant facts, and with neither party being under any obligation to buy or sell, and as of a specific date."

When considering the highest and best use value for certain assets, a premise can be defined both for value-in-use and value-in-exchange. However, all capabilities and characteristics of the CIP property should be taken into account when valuing the assets. This would include a cost approach, an income capitalization approach, and a direct sales comparison approach to ascertain the most appropriate value.

Cost Approach

Generally recognized as the most relevant indicator of value where value-in-use is concerned. This valuation method based on the principle of substitution provides a measure of worth for new properties, specific purpose properties (hospitals), unique properties (manufacturing), inventory, and machinery and equipment. Taxing jurisdictions often mischaracterized the highest and best use of a property and present the cost approach as a method to set the ceiling for value. They argue the highest and best use is the current use of the property. Only a market driven value-in-exchange analysis, not the value-in-use to an owner, should identify highest and best use. The value-in-use standard violates most state laws and attempts to attach a label of special property. CIP assets have a value to the taxpayer based on cost, less physical depreciation, functional, external, and economic obsolescence, but little value to potential buyers. Functional obsolescence may exist if the M&E represent a superadequacy or overimprovement for a machine built for the specialized and limited needs of one user. External obsolescence may be present where the CIP M&E must be inspected and approved by a government agency before it can be put to use. The value-in-use principle considers that if the asset adequately performs the intended use, then value can best be measured by what it would cost to construct, less depreciation and obsolescence.

The Cost Approach applicability is industrial in nature and extremely expensive to build, and is often designed as part of a manufacturing process. Again, the value-in-exchange, not value-in-use, is used as a standard for ad valorem tax purposes. Taxing jurisdictions typically do not make adjustments to account for functional or obsolescence in the assessment of CIP assets beyond model life expectancy. This is not surprising given the infancy of the CIP assets as there is likely no physical deterioration or obsolescence. Statutes frequently provide the depreciation tables that account for physical depreciation only. CIP assets are not very adaptable for uses other than their specific design and, if adapted, are often underutilized. The excessive valuations distort the fair market value of the CIP. A detailed cost analysis to remove indirect costs, excess operating costs, excess construction costs, and operating expenses will help arrive at an appropriate market value.

Income Capitalization Approach

Under the principles of anticipation and change, this valuation method attempts to calculate future income associated with return of investment and return on investment. However, unless CIP assets are actively participating in some form of activity that leads to a salable product on a given lien date (i.e.: production, etc.), there is no income. CIP assets utilized in trial parts and quality testing are examples of non-revenue activity. Intangible assets that are inseparable from the CIP have little to no value in an income methodology. Predominantly, CIP assets reflect no value of future cash flow. If there is no income, then there is no value. At least, not until the CIP assets are put into service. The assessor should not speculate as to what the property value may be in the future.

Sales Comparison Approach

As previously discussed, for most states, the ad valorem taxation model is based upon a value-in-exchange premise rather than value-in-use. This ensures equitability and uniformity in the assessment process. Fundamentally, value-in-exchange implies that there is an active sales market for assets of life-kind. However, this is not a typical case for CIP. What-if the project falters; installation halts, bankruptcy occurs, and/or the assets are not put into service? Utilizing the sales comparison approach under a value-in-exchange premise establishes the uncertain scenario to the existence of a potential buyer of these assets. Prior to production, a limited market diminishes the CIP assets to a residual or salvage value at best.

Cost vs. Value

The price paid for a particular asset and the cost of a particular asset may be higher than, lower than, or equal to the asset's value (VME). Even though many states formally recognize the difference between value-in-use and value-in-exchange (i.e.: fair market value), their CIP valuation requirements assign an actual cost or mathematical calculation to determine the value (i.e. AZ below). Unilaterally, the states fall back into a cost approach methodology. Florida considers CIP to be "those items of tangible personal property commonly known as fixtures, machinery, and equipment when in the process of being installed in new or expanded improvements to real property and whose value is materially enhanced upon connection or use with a preexisting, taxable, operational system or facility." F.S.A § 192.001(11)(d). CIP in New Mexico is defined as "the total of the balance of work orders for property in process of construction on the last day of the preceding calendar year but does not include the equipment, machinery or devices used or available to construct such property but not incorporated therein." N.M.S.A. 1978, §7-36-33(B)(6). The calculation for "[c]onstruction work in progress shall be valued at fifty percent of the actual amounts expended and entered upon the accounting records of the taxpayer as of December 31 of the preceding calendar year as construction work in progress." N.M.S.A. 1978, §7-36-33(D).

42-13354. Assessing personal property construction work in progress; definition

A. The county assessor shall not value or assess personal property construction work in progress until the construction work has progressed to a sufficient degree for the personal property to be useful for the purposes for which it is being constructed.

B. For the purposes of this section, "personal property construction work in progress" means the amount spent and entered on the taxpayer's accounting records as of December 31 of the preceding calendar year as construction work in progress.

When an organization begins a major project, the public relations department commonly submits a press release which proclaims the total cost of the project. Absent other information, assessors often use press clippings to create erroneous assessments. Unfortunately, this creates significant problems relative to CIP valuation because the press account normally differs significantly from the actual project costs and projected start-up dates. This just adds another obstacle to the taxpayer's effort to achieve an equitable assessment. Taxpayers should decline, or at least, be circumspect about associating dollars with CIP for the press.

As a proactive approach, a comprehensive review of the fixed asset list will help classify assets as taxable or not taxable per the jurisdiction's statutes and regulations. Further classification of the taxable assets into the most advantageous reporting group as allowed per the guidelines would be advantageous. Many jurisdictions attempt to categorize 100% of the CIP personal property account balances into machinery and equipment trend tables. However, though normally not visible or publicly shared, many jurisdictions have more favorable trend tables for personal property than just M&E. Typically, when requested, taxpayers will find shorter life cycles in the following classifications: communication equipment, robotics, security equipment, and special tooling. In addition, below are specific items to look for within CIP accounts and/or on invoices that can be removed from the calculation, thus lowering the taxable basis:

- Indirect and Soft Costs – Indirect, or soft, costs are "expenditures that are normally required to purchase and install a property but which are not usually included with the vendor invoice." VME, pp. 53-54. While it is common practice to include indirect costs in cost estimates, they do not always contribute to the fair market value of personal property. Specifically within CIP, these costs (embedded software, warranties, engineering costs, excess shipping costs, customs/duty fees, rental charges, capitalized labor for the technical assistance, etc.) should be segregated from the personal property invoices as they add no recoverable value to specific units of tangible personal property. Once these intangibles are identified and qualified, the cost basis of the affected category, mainly machinery and equipment, is reduced by the identified intangibles.

- Pollution Control - Pollution control assets identified are usually submitted for approval as pollution control devices to a state's environmental commission. By identifying the assets identified as pollution control, receiving the proper certification and excluding these assets from the return, the taxpayer reduces the CIP taxable basis.
- Embedded Intangibles - The intangibles identified as copier rental fees, non-value items, such as relocating items from one area of the plant to another, portable storage containers used in the construction process, technical assistance costs and miscellaneous items can be excluded from the personal property tax return.
- Embedded Software in Robots – This software represents "intangible" property unique to a manufacturer's computer-controlled process equipment and possesses no resale value.
- Embedded Software in Machinery & Equipment – This software is included in the total cost of machinery & equipment, but during review of the personal property invoices, it is recommended to identify the specific descriptions and treating these assets as software and not include the identified cost as machinery and equipment
- Intercompany Mark-up – Any compensation for R&D or engineering/architectural layout design services in CIP should be omitted as there is no contribution to specific asset value.

Though not a complete list, this provides a checklist for taxpayers to investigate and implement during the personal property tax analysis. If these costs are reported to the assessing authority without explanation, they will undoubtedly end up in the assessment of the property.

Summary

"Using a method of valuation designed solely to capture the specific utility of property to a particular owner is contrary to law." Pacific Mutual Life Insurance Company v. County of Orange, 187 Cal. App.3d 1141, 1149, 232 Cal. Rptr. 233, 237 (Cal. App. 4 Dist., Apr. 19, 1985). The legal objective of the property tax assessment is to value property as of a specific point in time. The property tax valuation should consider only the established value of the formal assessment date formulated by the three methods of value – Cost, Income, and Sales. Each valuation analysis should be totally independent and stand on its own analytical merit. Taxpayers are going to find their most reasonable efforts of lowering CIP value in the Sales Comparison and Income approaches, though the Cost approach can provide defensible lower values as well. Ultimately, a thorough personal property tax review utilizing tax research, proper classification, correct asset segregation, and an accurate fair market value analysis will allow the taxpayer to achieve an appropriate value and assessment basis for CIP personal property.

APPENIDIX A

THE TIMING OF ASSESSABILITY AND TAXABILITY OF CIP

As a general matter, states handle the timing of the assessment of CIP in progress in one of five ways:

1. At commencement of construction – Utah assesses CIP based on the full cash value projected upon completion.

2. During construction – Many states, including Alabama, California, Colorado, Louisiana, Minnesota, Missouri, Nebraska, North Carolina, Ohio, Washington and Wisconsin, value CIP based on the value or percentage of completion on the assessment date. Kansas values incomplete construction based on the cost incurred as of the lien date. In the District of Columbia, construction in progress that is as little as 65% complete can be assessed provided it increases the market value of the real property by at least $100,000. D.C. Code §47-829(d).

3. Substantial completion – CIP in Arizona, Florida, Maryland, Virginia and West Virginia becomes taxable when the work has progressed to a degree that it is useful for its eventual purpose. Furthermore, in West Virginia the construction materials are taxed as personal property throughout the period of construction.

4. Upon completion – In states such as Connecticut, Idaho, Illinois, Oregon, Pennsylvania and South Carolina, the improvements are assessed upon completion. Assessments in Connecticut, Idaho, Illinois and Pennsylvania are prorated for the year in which the construction is completed.

5. When a certificate of occupancy is issued – Massachusetts and Rhode Island assess CIP on a proportionate basis as of the assessment date once the certificate of occupancy is issued.

APPENDIX B

Classification and Timing Collide: A Case Study

The interplay between the classification and timing issues mentioned above is illustrated in the Connecticut Tax Court's decision in Pfizer, Inc. v. Town of Groton, No. CV-96-0538437-S, 1999 WL 773569 (Conn. Super., Sept. 17, 1999). In 1993, Pfizer embarked on an ambitious and expensive building program at its Groton campus. In that year, it began building an Organic Synthesis Plant ("OSP") which was a state of the art facility for manufacturing active pharmaceutical compounds for prescription drugs. Significant portions of the OSP were considered to be personal property by Pfizer and would be entitled to a multi-year tax exemption for new manufacturing machinery and equipment upon application to the assessor. That year also saw commencement of construction of a sophisticated Waste Water Treatment Facility ("WWTF") which also would be entitled to exemption upon approval of applications to the State Department of Environmental Protection ("DEP") and the assessor.

Due to the complexity and scale of these projects and the fact that their construction had to be approved by federal and state authorities, the OSP was not operational until late 1995; the WWTF became operational in early 1996. In the meantime, Pfizer did not file the requisite exemption applications with the DEP and the Groton assessor for the October 1, 1995 grand list believing that they were premature. Pfizer took the position that the OSP and WWTF personal property was not taxable prior to its completion and eligibility for exemption. Not surprisingly, Groton took the opposite view and issued a large supplemental assessment with penalty.

In deciding this case, the court focused heavily on the wording of the relevant exemption statutes which were silent on the assessability and taxability of CIP. The drafters of these statutes likely did not contemplate a situation where it took three years to render personal property operational. The statutes imposed specific filing requirements on Pfizer which it did not meet. Stating that the court was bound by the wording of the statutes and that only the legislature could rewrite them, the issue was decided in favor of Groton.

In an interesting postscript to this litigation, the Connecticut General Assembly took the court's parting words to heart. Not long after the decision was issued, Connecticut General Statutes §12-71(b) was amended to exempt personal property that would eventually become eligible for the exemption. The General Assembly did not, however, make a corresponding change applicable to pollution control equipment.