Arizona's Long History of Business-Friendly Sales and Use Tax Manufacturing Exemptions

By Michael G. Galloway

Michael G. Galloway examines Arizona's sales tax exemption for machinery and equipment used in manufacturing.

Arizona, like most states with sales and use tax, has exemptions for machinery used in manufacturing. Some states expand the definition beyond machinery to include equipment.[1] Other states limit the exemption to items used or consumed directly in the production of tangible personal property by manufacturing.[2] Some states extend exemptions beyond manufacturing to include mining, processing or fabricating, as well as assembling, extracting and refining.[3]

Manufacturing exemptions are motivated less by tax policy, which provides that business inputs should be exempted, and more by legislative attempts to remove tax barriers to economic development and make in-state businesses more competitive in interstate and international markets.[4]

In Arizona and its cities, what is generally known as the sales tax is, in fact, a transaction privilege tax (TPT) on numerous business activities, including contracting, job printing, leasing, telecommunications and other categories, including retail sales. Retail sales to manufacturers are exempt because sale of the final products made by the manufacturers is subject to sales tax. Typical of the business inputs concept, it would be double taxation to apply the sales tax to the machinery that produces the final products in addition to the final products.

To the extent that sales tax is not paid on purchases, the manufacturer is liable for use tax. Use tax is the counterpart to the sales tax and is imposed on the owner's storage use or consumption of the item in the state. As is fairly universal, it compensates the state of Arizona for sales tax lost by purchasing items out of state.

Arizona has manufacturing exemptions that are typical of other states. What Arizona also has is a long and mostly consistent history of its administrative and judicial courts broadly interpreting the exemptions, and providing a very accommodating business climate for manufacturers and others that fall under

MICHAEL G. GALLOWAY, J.D., LL.M., is a Certified Tax Specialist and a Partner at Ryan Rapp & Underwood, in Phoenix, Arizona. Michael can be reached at *mgalloway@rrulaw.com*.

the exemptions. Indeed, the fairly recent affirmation of broadly interpreting these exemptions by the Arizona Supreme Court, discussed below in *Capitol 3*, proclaimed that the manufacturing exemptions are tools of economic development.[5]

A. The State and City Provisions

In Arizona, the business of selling tangible personal property at retail is subject to TPT.[6] Retail is not defined and retailer is not very helpfully defined as those in the business of making retail sales, which includes distributors, salesmen, peddlers and canvassers. However, a regulation provides that gross receipts from sales of tangible personal property to be resold by the purchaser in the regular course of business are not subject to tax under the retail classification.[7] That clarifies the definition of retail, provides a sale for resale deduction and establishes that a sale for resale is not an exemption but rather a question of the scope of the tax.

Following this provision are approximately 90 nonmanufacturing exemptions from TPT on the retail classification. The manufacturing exemptions start at Ariz. Rev. Stat. Ann. (A.R.S.) §42-5061(B) and are commonly referred to as the "B" exemptions. The principal section addresses sales of machinery and equipment used directly in manufacturing and other activities, which provides an exemption for:

> Machinery or equipment used directly in manufacturing, processing, fabricating, job printing, refining or metallurgical operations. The terms "manufacturing," "processing," "fabricating," "job printing," "refining," and "metallurgical" as used in this paragraph refer to and include those operations commonly understood within their ordinary meeting. "Metallurgical" operations include leeching, milling, precipitating, smelting, and refining.[8]

There are similar provisions for machinery used directly in mining,[9] producing and transmitting electrical power,[10] repairing and maintaining aircraft,[11] drilling for oil or gas[12] and feeding poultry and producing eggs.[13] There are other provisions that exempt machinery or equipment for various uses.[14]

The use tax exemptions for manufacturing, mining and so forth are, as constitutionally required, virtually identical to the sales tax exemptions.[15]

Finally, there are several exceptions to the exemptions,[16] with the most notable and problematic being for expendables,[17] which excludes:

> Expendable materials. For the purposes of this paragraph, expendable materials do not include any of the categories of tangible personal property specified in subsection B of this section regardless of the cost or useful life of that property.

If the material is by definition machinery and equipment used directly in manufacturing, it is not an expendable even if it is consumed in the process, cost 50 cents or was only used once. This definition only recently included the second sentence language which initially did not have the clarifying effect as hoped. Expendables are discussed in depth below.

1. The City Exemptions

Arizona is a home rule state and its cities for decades have enacted their own independent TPT and use tax codes. Most cities have their tax administration carried out by the Arizona Department of Revenue (ADOR), but the larger cities, until very recently, administered their own programs. After years of legislative pressure to remove the lack of uniformity between each city tax code, the cities in 1987 drafted and agreed to use uniform sales and use tax provisions known as the Model City Tax Code (MCTC).

When first issued and formally adopted by all Arizona cites, the MCTC had manufacturing exemptions that were very different from the state version. Instead of focusing on machinery and equipment, the exempt items were "income-producing capital equipment" and there were many other differences, along with local options that varied from the state provisions. Political pressure came into play again and after a number of revisions, the MCTC manufacturing exemptions today are virtually the same as the state version.[18]

B. Preliminary Issues

Before getting to the question of what types of machinery and equipment qualify for the exemptions, it frequently must be determined if the taxpayer is engaging in an exempt business activity at all.

1. What Is Manufacturing?

The above definitions say little about what the term manufacturing, as well as the other categories, means. One statute defines manufacturer as "[a] person who is principally engaged in the fabrication, production or manufacture of products, wears or articles for use from raw or prepared materials, imparting to those materials new forms, qualities, properties and combinations."[19] However,

this provision states that the definition is not intended for the "B" exemptions.

The ADOR provides that "[m]anufacturing is the performance as a business of an integrated series of operations which place tangible personal property in a form, composition, or character different from that in which it was acquired and transforms it into a different product with a distinctive name, character, or use."[20]

Finally, the Arizona Constitution contains the following language for property tax exemptions:

> No tax shall be levied on raw or unfinished materials, unassembled parts, work in process, or finished products, constituting the inventory of a manufacturer or manufacturing establishment located within the state and principally engaged in the fabrication, production and manufacture of products, wares and articles for use, from raw or prepared materials *imparting thereto new forms, qualities, properties and combinations*, which materials, parts, work in process or finished products are not consigned or billed to any other party[21] (emphasis added).

The courts have addressed some situations. *See Ariz. Dep't of Rev. v. Magma Copper Co.*[22](fabricating electrolytic cathode copper into continuous cast rod and magbar constitutes manufacturing); *State Tax Comm'n v. Wallapai Brick & Clay Products*[23] (making bricks is manufacturing); *McElhaney Cattle Co. v. Smith*[24] (commercial feed lot for raising cattle (in a property tax case) is not manufacturing); *County of Apache v. Southwest Lumber Mills, Inc*.[25] (lumber milling (in a property tax case) constitutes manufacturing which is imparting new forms, qualities, properties and combinations to raw material); and *CCI Europe, Inc. v. Ariz. Dep't of Rev.*[26] (newspaper publishing is manufacturing) (discussed below).

However, most of the other terms in the manufacturing exemption are not as judicially defined. Fabricating and refining are not defined anywhere. Metallurgical operations are defined only to the extent of the several terms used in the exemption language.

2. What Is Processing?

Processing has received more attention. The ADOR has defined processing in a private taxpayer ruling as "[t]o subject to or treat by a special process; to operate or mechanically or chemically; spec[ifically] to preserve or alter (food, a foodstuff, *etc*.) in this way. Also, more loosely: to deal with (something), esp[ecially] according to an established procedure."[27]

The Arizona Court of Appeals, in *Ariz. Dep't of Rev. v. Blue Line Distributing*,[28] reviewed whether equipment like an industrial dough mixer to make pizza constituted manufacturing or processing and was exempt from TPT. Blue Line argued that the machinery converted material into a different form or composition than it was when acquired, exactly as described in the ADOR regulation at A.A.C. R15-5-170(A). However, the court looked at the language of A.R.S. §47-5061(B)(1) which provided that processing included "operations commonly understood within their ordinary meaning."[29] It held that the Blue Line's equipment was more like a restaurant or food business and not an individual operation, was not processing as commonly understood and not exempt.

What Arizona also has is a long and mostly consistent history of its administrative and judicial courts broadly interpreting the exemptions, and providing a very accommodating business climate for manufacturers and others that fall under the exemptions.

The court engaged in a more in-depth analysis in *Meredith Corp. v. State Tax Comm'n*.[30] The issue was whether a video tape recorder purchased by a television station was equipment used in processing. The recorder allowed the station to record programs and commercials and subsequently transmit the pre-recorded material. The court held that the recorder was not equipment used in processing, concluding that the recording, storage and later transmission of television signals were not part of a processing operation.

The court first discussed statutory exemption language that processing involved operations commonly understood within their ordinary meaning. The court stated:

> This directive requires an application of the statute which is consistent with the ordinary man's understanding of what constitutes a "processing operation," rather than a scientific or technical interpretation.[31]

The court then discussed the earlier *Moore* decision,[32] where cotton ginning was held to be processing. *Moore* had used the following definition:

> to subject (especially raw material) to a process of manufacturing, development, preparation for market, etc.; to convert to marketable form, as livestock by slaughtering, grain by milling, cotton by spinning, milk by pasteurizing, fruits and vegetables by sorting and repacking.[33]

Using this type of analysis, the court ruled against Meredith, concluding that:

> [t]he terms "manufacturing" and "processing" have no common sense application to operations involving the transmission of broadcasting of electronic signals … . A complete reading of A.R.S. § 42-1409 provides further support for this conclusion. Section 42-1409(B)(3) grants an exemption for transmission equipment used by telephone and telegraph companies, and § 42-1409(B)(4) provides an exemption for equipment used in the production and transmission of electrical power. These specific exemptions indicate that the term "processing operation" as used in § 42-1409(B)(1) was not intended by the legislature to include the transmission of a television picture by electronic signals. If they had intended such exemption, they would have said so.[34]

In *Ariz. Dep't of Rev. v. Sonee Heat Treating Corp.*,[35] the Arizona Tax Court held that processing was a "series of actions or operations conducing to an end … a continuing operation or treatment esp[ecially] in manufacturing."[36]

3. What Is Job Printing?

Job printing is not defined in the manufacturing exemption although it is specifically listed. However, job printing is subject to the TPT under A.R.S. §42-5066 as the business activity of "job printing, engraving, embossing, and copying."

The ADOR's official position describes job printing as:

> Job printing activities include, but are not limited to, multi-graphing, lithographing, photostating, multilithing, letter press, offset, or any other means of duplicating. The printing or reproduction of books, periodicals, magazines, stationery, and any other printed matter which is copied or reproduced by printers is subject to tax under the job printing classification.
>
> A full service printer may perform all functions necessary to produce printed matter including pre-press activities and binding or mailing activities. However, the full service printer may also accept printing orders for which pre-press activities have been performed by other vendors by the ultimate consumer or for which binding and mailing services may be performed by another business.
>
> A full service printer is subject to tax on the gross income from a business of job printing, without any induction for pre-press activities or for binding and mailing activities regardless of whether those activities are performed by the printer or are passed through to the consumer as sub contract work performed by another person.[37]

See Qwest Dex, Inc. v. Ariz. Dep't of Rev.[38] (publishing of telephone directories is job printing).

4. Conclusion

After resolving any of the above preliminary hurdles come the three main and interrelated manufacturing exemption issues: (1) what qualifies as being "used directly" in manufacturing, (2) what is machinery and equipment, with the follow up question of (3) what is an expendable?

C. What Is Used Directly?

Duval Sierrita Corp v. Ariz. Dep't of Rev.[39] is the first and now 40-year old case that significantly addressed the manufacturing exemption. In *Duval*, the court had to determine whether a conveyer belt used to transport copper between crushers, steel pipes used to transfer ore slurry and booster pumps used to transfer water to the copper mill from several miles away were subject to use tax, or exempt as machinery and equipment used directly in mining. Since the equipment was as least arguably peripheral to the mining, the court considered the issue of whether it was "used directly" in the operation.

The court concluded it was. Even though the court was reviewing a tax exemption, usually narrowly construed against the taxpayer, it rejected the narrower "Ohio rule" offered by the ADOR as the appropriate statutory test. Instead it adopted the broader "integrated rule," which it described as follows:

> The second theory of interpretation of the term "used directly" can be designated as the "integrated rule." Cases adopting the integrated rule are typified by *Niagara Mohawk Power Corp. v. Wanamaker* [citation omitted] which held the test to be applied in determining whether a disputed piece of machinery was

"used directly" in the exempt process was to answer the following questions:

"(1) Is the disputed item necessary to production?"

"(2) How close, physically and causally, is the disputed item to the finished product?"

"(3) Does the disputed item operate harmoniously with the admittedly exempt machinery to make an integrated synchronized system.[40]

In applying this test to the used-directly requirement, the court stated:

In our opinion, the boundaries of the exempt operation must be drawn taking into consideration the entire operation as it is "commonly understood" which operation must, of necessity, include those items which are essential to its operation and which make it an integrated system. We so interpret the words "used directly" in A.R.S. § 42-1409(B).

Applying this interpretation to the disputed items here, it is clear that the metallurgical portion of Duval's Sierrita operation begins, at least, at the time the ore and native rock is introduced into the primary crusher to begin the process of reducing the material to workable size. The first disputed item is the five-mile long conveyor belt which transports the coarse ore from this primary crusher to the secondary crusher. Even in Ohio this would be considered exempt as being "directly in" the metallurgical operation and we so hold ….

The same can be said for the steel pipes that transport the slurry from the mill to the flotation tanks ….

The third disputed items are the booster pumps needed to transport water from Santa Cruz Valley, nine miles from the mill to the mill itself … . This process simply cannot take place without water. It is obvious it is essential to the entire operation.[41]

Finally, *Duval* also held that Duval's inventory of spare parts for its mining equipment fell under the exemption, concluding that:

We think it more logical that what the legislature intended by the use of the words "used directly" was to create a classification of personal property entitled to exemption from taxation, depending on its ultimate function in the mining or metallurgical processes.[42]

This aspect of the decision is particularly significant since spare and replacement parts are not being used at all, directly or otherwise. "Used directly" became a function of how the part would ultimately be used in the future. At the same time, it provides guidance on what is exempt machinery and equipment. Sand normally would not be considered machinery but it could when used to make products for sale.

With Capitol 3, *the Arizona judicial view of TPT manufacturing exemptions reversed some temporary backtracking and restored the 40-year period starting with Duval of broad interpretation.*

A few months later, the *Duval* holding was followed in *State Tax Comm'n v. Anderson Development*[43] where a Caterpillar scraper and tractors were held to be used directly in mining. During the period following *Duval,* the Arizona Board of Tax Appeals (BOTA), an independent state agency, reviewed numerous appeals and frequently supported the taxpayer's position.[44] However, it was not for another 20 years that an appellate court revisited *Duval*, in the *Capitol Castings* cases discussed below.

In *RenalWest v. Ariz. Dept. of Rev.*,[45] a nonmanufacturing case, the court addressed whether various types of dialysis equipment, including cleaning solutions, testing equipment and other items used in kidney dialysis, qualified as "prosthetic devices" and were exempt from use tax. RenalWest provided undisputed testimony of a nurse and doctor that all of the items at issue were necessary for kidney dialysis to be performed or be performed safely. The court concluded that "because dialysis is an integrated process and these items are necessary to safely perform the procedure, they constitute a prosthetic appliance pursuant to A.R.S. §23-501(7)."[46] While the underlying issue in *RenalWest* was not whether the equipment and supplies were manufacturing machinery, the court relied on the concepts enunciated in *Duval*, holding:

The parties agree that dialysis is a "complicated, integrated process requiring solutions, testing equipment and supplies." Both an experienced nephrologist and

> nurse testified that Items 1 through 103 are essential to safe dialysis. As such, they constitute devices. These devices are necessary substitutes for failed kidneys. Thus, Items 1 thorough 103 in their entirety constitute a prosthetic appliance. *See also Department of Revenue v. Sonee Heat Treating*, 178 Ariz. 278, 279, 872 P.2d 682, 683 (1994); *Duval Sierrita Corp. v. Department of Revenue*, 116 Ariz. 200, 205, 568 P.2d 1098, 1103 (App.1977) (broadly interpreting "used directly" in operations to provide exemption for items necessary and essential to operation at issue).[47]

As will be seen below, *Duval* will be "distinguished" and then "revived" in the *Capitol Castings* cases.

D. What Is Machinery and Equipment?

It is machinery and equipment used in manufacturing and various other operations that is exempt. What constitutes machinery and equipment has been a contested issue, especially given that expendables do not fall under the exemption and the two are interrelated in determining what is exempt.

During the late 1980s and 1990s, due mainly to advances in manufacturing, what constituted machinery and equipment used in manufacturing was frequently litigated. As with the issue of what machinery was used directly in manufacturing, BOTA reviewed numerous appeals and frequently took the broad position on what constituted machinery and equipment.[48] By ruling as it did so many times, BOTA laid much of the groundwork for future decisions that were resolved judicially. Of course, the Board had been influenced by *Duval* and saw the inclusive interpretation of used directly equally applying to what constituted machinery and equipment. It was a BOTA decision,[49] affirmed[50] by the Arizona Tax Court, that was a focal point of *Capitol 1* discussed below.

1. Machinery and Equipment or Expendable Materials?

Probably no area of the law has been more problematic in recent years than the question of what constitutes non-exempt expendable materials used in manufacturing. *See, e.g., Anamax Mining Co. v. Ariz. Dep't of Rev.*[51] (grinding balls and rods that last for a year are not expendable); *Cyprus Bagdad v. Ariz. Dep't of Rev.*[52] (sulfuric acid and kerosene are machinery used in mining and while used up in the process, are not expendable); *Cyprus Sierrita Corp. v. Ariz. Dep't of Rev.*[53] (chemicals used in the production of copper are used directly in manufacturing and are not expendable); and *Liquid Air, Inc. v. Ariz. Dep't of Rev.*[54] (liquid gases were expendable but ancillary machinery used directly in manufacturing and exempt).

The term "expendable" is undefined in the statute, leaving the ADOR to develop its own methodology. One system used by the ADOR had been to consider capitalized items (with a useful life of greater than one year) as machinery and expensed items (with a useful life of less than a year) as expendable. Another one had been to treat items below a certain cost as expendable, comparable to an old MCTC provision with a unit price of $250 or less.

a. ADOR v. Cyprus Sierrita ("Cyprus")

Coming to terms with expendables started in 1994 when the question of whether chemicals used in coal mining and completely consumed in the process were exempt as machinery used directly in mining or expendable. In *Ariz. Dep't. of Rev. v. Cyprus Sierrita Corp.*,[55] the Arizona Tax Court concluded that chemicals, even though used up in mining, qualified as equipment under the mining exemption at A.R.S. §42-5161(B)(2). The court stated that the Arizona Legislature only intended for items that were "ancillary" to the mining process to be expendable.[56] This was not the first time that the ADOR had lost on the question of whether chemicals that were consumed in the manufacturing or mining process were exempt. *See, e.g., Anamax Mining Co. v. Ariz. Dep't of Rev.*[57] (chemical reagent LIX and kerosene used in extracting copper ore were exempt as machinery used in mining).

b. State v. Capitol Castings ("Capitol 1")

However, even though not on appeal or under review, *Cyprus* was overruled in the case of *State v. Capitol Castings, Inc.*[58] (*Capitol 1*). Capitol Castings operated two foundries in which it manufactured grinding balls and custom castings. Capitol produced the balls and castings by melting scrap metals in arc furnaces, adding alloys and pouring the molten metal into molds. It made the molds in-house, using silica sand, chemical binders, exothermic sleeves, mold cores, mold wash and hot topping. The chemical binders helped the sand retain its shape and form the mold. The mold core, which was made from sand, was placed in the mold to form desired shapes in the product. The wash was sprayed on to seal the mold so that sand did not get into the product and molten metal did not penetrate into the sand.

The sleeve was inserted into the mold, like a stove pipe, and molten metal was poured into the sleeve, filling the mold and part of the sleeve. The topping was then added,

which helped the metal in the sleeve stay molten. As the metal in the mold cooled and contracted, the resulting space was filled with molten metal from the sleeve. After the metal hardened, the product was shaken out of the mold. The sleeves, hot topping, chemical binders and mold wash were consumed in one manufacturing process. About 85 percent of the sand was reclaimed and reused; the remainder was lost due to spillage or fracturing. Capitol contended that all of these materials, even though used up in the manufacturing process, were exempt machinery.

The court first discussed the analysis in *Cyprus*. In overturning the Tax Court's holding on chemicals, the court rejected its definitional analysis:

> Although the *Cyprus* Court chose an appropriate dictionary definition of "machine," it disregarded crucial portions of that definition and misapplied others. The court concluded that chemicals are "machines" because they act "in predetermined manners to obtain a specific desired result," but it ignored the part of the definition that specifies that a machine acts in this way as "an assemblage of parts ... that transmit forces, motion and energy one to another ... ." As a result, the Court's analysis took it far beyond the definition's examples of the actions of a machine: "sewing a seam, printing a newspaper, hoisting a load, or maintaining an electric current."
>
> The *Cyprus* Court took an equally broad approach in deciding that chemicals were "equipment." It began with a portion of the appropriate definition of "equipment," which reads:
>
> 2a: the physical resources serving to equip a person or thing funds for buildings and the vocal of a singer a new jail became part of the municipal—Amer. Guide Series: Va.: as (1): the implements (as machinery or tools) used in an operation or activity: APPARATUS where a tractor is standard sports (2): all the fixed assets other than land and buildings of a business enterprise the plant, and supplies of the factory.
>
> WEBSTER'S at 768. However, the Court omitted the portion of the definition that is most relevant in a business setting--the "fixed assets" of a business enterprise other than land and buildings. *Cyprus Sierrita* [citations omitted]. The Court also relied on a broad statement that "equipment" and other related terms "can signify, in common, all the things used in a given work or useful in effecting a given end. Equipment usually covers everything except personnel needed for efficient operation or service … ." Id. From this, the Court concluded that "[t]he chemicals fall within these common definitions of 'equipment' … ."
>
> A Court does not construe an exemption statute "reasonably and strictly" by interpreting its words broadly, expansively, or figuratively, or by blending selected portions of abstract definitions to achieve a desired result. Because we conclude that *Cyprus* applied an overbroad rule of construction and reached a clearly erroneous result, we overrule it.[59]

Accordingly, the court, without really saying so, concluded that the materials at issue were not machinery and equipment.

Capitol had argued that the *Duval* holding required exempting the materials at issue. *Duval* stated that the use of the term "used directly" was to create a classification of property exempt from taxation if its "ultimate function" was being used in the mining process. Thus, it contended that *all* property considered to be machinery used or to be used in mining was exempt. However, the court rejected this analysis, pointing out that the spare and replacement parts at issue in *Duval* were conceded to be machinery, and that the ultimate function language was limited to an analysis of those items. The court did not extend the exemption to everything used in the process and did not see the "used directly" concept as broadening the definition of equipment, stating:

> Capitol's exemption claim was based on a theory that its personalty "was exempt from the use tax because its ultimate function was to become an essential and integral part of a piece of machinery or equipment used directly in Capitol's manufacturing operations." … We reject this theory because it is based solely on a misconstruction of *Duval*.[60]

Finally, the court resolved, with little analysis, the real issue and ruled that the manufacturing items were used up in the process and were expendable and not exempt. It rejected the argument that expendables only covered materials that were incidental or ancillary to the process, but rather included anything that was expendable, even if it was otherwise exempt machinery or equipment. Odd but probably correct was the court's comment that this holding made moot everything it had said earlier about *Duval*.

i. *The Legislative Response***.** There was immediate industry reaction to *Capitol 1*, and in 1999, legislation was passed to retroactively modify the expendable exclusion.[61] Added to the exclusion was the provision:

> [f]or the purposes of [the definition of expendable], expendable materials do not include any of the categories of tangible property specified in subsection B of this section regardless of the cost or useful life of that property.

This language made it clear that anything that qualified as machinery or equipment used in manufacturing that was otherwise exempt would still be exempt notwithstanding its useful life, how much it cost or whether it was capitalized or expensed for accounting purposes.

c. State v. Capitol Castings ("Capitol 2")

On remand of *Capitol 1* to the Tax Court, it reconsidered its original opinion in light of the new retroactive legislation. However, it concluded that the legislation had no effect on the decision. While it did not further address the expendable issue, the court concluded that the chemicals, molds, sleeves and other items did not qualify as "machinery or equipment" in the first place and did not fall under the exemption.

This decision was appealed to the Court of Appeals in *State v. Capital Castings, Inc*.[62] (*Capitol 2*), which affirmed the Tax Court, holding that while the 1999 legislation addressed the question of expendables, it did not in any way change the definition of machinery and equipment as it had discussed under *Duval*, and the chemicals and material did not qualify.[63]

d. State v. Capitol Castings ("Capitol 3")

The Arizona Supreme Court took review of *Capitol 2* in *State v. Capitol Castings, Inc*.[64] (*Capitol 3*) and reversed the decision because its definition of machinery and equipment was too narrow.

The court concluded that the Arizona Legislature had clearly indicated in the 1999 expendable legislation that it wanted to reverse *Capitol 1* and reinstate the *Duval* tests in several ways. The legislation was retroactive to May 19, 1977, which was the same day that *Duval* was issued. In addition, the language of the amendment that supplemented the term "expendable" specifically reversed the court's legal underpinnings in *Capitol 1*. The court said:

> The conclusion in *Capitol I* that the items at issue did not qualify as machinery or equipment was ultimately grounded on the fact that the items were expended in the casting process … .The legislature then promptly removed an item's expendability as an impediment to qualification for the use tax exemption, thus making plain that expendable materials can function as machinery or equipment.[65]

Finally, the history of the 1999 legislation indicated that its intention was to reverse *Capitol 1*. The Senate Finance Committee that passed the legislation had discussed the Capitol Castings cases in its deliberations.

The court also concluded that the goal of the manufacturing exemption was "promoting economic development," which should not be frustrated by being too narrowly applied.

In discussing *Duval*, the court believed that it provided a functional framework for evaluating exempt machinery and that both of its tests were necessary. It pointed out how a computer was clearly a machine, but its taxable status would vary depending on if it was used for administrative tasks or to control an assembly line. Also, chemicals usually would not be machinery but they would be if they extracted copper ore as with *Cyprus*. The court concluded:

> As these examples show, a functional approach requires consideration of both of the exemption's elements, as neither element standing alone may be dispositive. By embracing *Duval Sierrita* and its ultimate function and integrated rule tests, the legislature expressed its intent to extend the exemption for machinery or equipment beyond the narrow confines created by *Capitol I.*
>
> From this evidence, we conclude that the 1999 amendment was specifically intended to overrule *Capitol I* and to reinstate the *Duval Sierrita* tests.[66]

Having revived *Duval* and returned the state of the law to pre-*Capitol 1* times, the court established several factors to be considered in determining whether something qualifies as machinery or equipment used directly in manufacturing:

- Flexible and commonly used definitions of machinery and equipment with the relevant industry
- The nature of the item in question and its role in the manufacturing operation

—In applying this factor, the court made two comments:

> [t]he closer the nexus between the item at issue and the process of converting raw materials into finished products, the more likely the item will be exempt
>
> consider whether the item physically touches the raw materials or work in process, or whether the item adds value to the raw materials or work in process as

opposed to simply reducing costs or relating to post-production activities.

- Apply the manufacturing exemption consistent with its goal of promoting economic development[67]

E. After *Capitol 3*

Following *Capitol 3*, under the radar, the ADOR was issuing private taxpayer rulings advising that numerous items were exempt under the manufacturing exemptions.[68] However, in litigation, the ADOR continued to take a narrow view. Three cases, though, strongly reaffirmed what was said in *Capitol 3*.[69]

1. *Microchip v. State*

In *Microchip Technology Corp. v. State*,[70] an income tax case involving pollution control credits, one of the issues was whether pollution control equipment was "directly used" in meeting or exceeding environmental regulations, as required under A.R.S. §43-1170(B). The ADOR argued that complying with the regulations had to be the primary purpose of the equipment and since it had other purposes beside pollution control, it was not being directly used. The court did not see any primary purpose requirement in the statute and cited and followed *Duval* in support of Microchip:

> Under the reasoning in *Duval Sierrita Corp.,* we likewise conclude that the property at issue here was part of an "integrated system" to control or prevent pollution—there is no factual argument to the contrary. Though the various items for which Taxpayer claims the credit may have additional purposes there is no dispute that the system they support does control pollution. Nor is there any dispute that the property is "directly used" to support the system. Neither the language nor the purpose of the statute support an interpretation that Taxpayer's property must have only one purpose—i.e., conforming to pollution-control regulations—to qualify for the tax credit.[71]

The court concluded that that the property could have more than one function within its operations and still be "directly used."[72]

2. *CCI Europe v. ADOR*

In *CCI Europe, Inc. v. Ariz. Dep't of Rev.*,[73] the ADOR argued that computer software used to produce a major metropolitan newspaper was not exempt because publishing a newspaper is not manufacturing. The court reviewed dictionary definitions and ADOR regulations, one of which defined a publisher as "one who *manufactures* and distributes a publication …"[74] and concluded, based on the ordinary meaning of the term, that publishing a newspaper is manufacturing.

The ADOR also argued that, even if publishing is manufacturing, the software was not used directly in that process. The court disagreed and, relying on *Capitol 3*, concluded that the software had everything to do with producing the newspapers:

> The CCI software is essential and necessary to the completion of the finished printed *Arizona Republic* newspaper. The software performs the layout, formatting, and typesetting functions necessary to create the printed newspaper pages. The software assigns a naming convention that controls the flow of each page through the production and printing process. The software manipulates words, photographs, advertising and graphics onto the printed pages. PNI takes the product produced with the CCI software and, with other software, hardware and raw materials, uses a mechanical process to manufacture the printed newspaper. As a result, the software, including the updates and releases, is integral to the manufacturing of the paper.[75]

3. *Chevron v. ADOR*

The most recent decision in this area, *Chevron U.S.A., Inc. v. Ariz. Dep't of Rev.*,[76] continued the court's broad view of the exemptions. In a denied refund claim appeal, *Chevron* argued that engine oil, gear oil, grease and open gear lube were equipment used directly in manufacturing. It had charged TPT and sold the lubricants to Freeport McMoRan for use in its mining operations. The ADOR did not dispute that the lubricants were used directly in the process but that they were not the functional equivalent of equipment.

Relying on *Capitol* 3, the court reviewed how the lubricants functioned:

> Following the guidance of our supreme court in *Capitol Castings,* we begin our examination of Chevron's oils and greases by reference to commonly used definitions of "equipment."As referenced by the court in *Capitol Castings,* Webster's College Dictionary defines equipment to include "the articles, implements, etc., used or needed for a specific purpose or activity." 207 Ariz. at 448, ¶ 12, 88 P.3d 159 (quoting Webster's College Dictionary 442 (2d ed.1997)). The online

Merriam–Webster dictionary similarly defines equipment to include "supplies or tools needed for a special purpose." Merriam–Webster online dictionary, http://www.merriam-webster.com/dictionary/equipment (last visited Nov. 12, 2015).

The oils and greases at issue here function to reduce friction, disperse heat, and suspend contaminants. They also create hydrodynamic pressure, which "cushions loads on components in various systems." They enable the machinery to function. We conclude that the oils and greases satisfy the commonly used definitions of "equipment" because they are articles, implements, and supplies needed by Freeport in its mining and metallurgical activities.

Next, we analyze the nature of Chevron's oils and greases and the role they play in Freeport's mining and metallurgical operations by reference to the evidence presented to the tax court. Chevron's expert explained that the oils and greases function to "maintain the separation of two surfaces in relative motion when loads, speeds, and temperature conspire to induce metal to metal contact." He further testified that the oils and greases perform the following functions: "dissipation of heat, occlusion and suspension of contaminants." A Freeport employee, who submitted a declaration supporting Chevron's motion for summary judgment, explained:

Without these products, the machinery (and the systems within the machinery) would not function. They are as essential as any other component of Freeport's machinery and equipment, and are a critical, integral part of the machinery. In other words, the oils and greases are not used solely to protect or extend the life of the machinery—although that is obviously a critical function in and of itself—but to make it operable in the first place.

Furthermore, as stated in Chevron's statement of facts, "given the size and weight of the machinery, it must be transported with these products in place. Otherwise, much of it would simply collapse on itself."[77]

The ADOR did not and probably could not dispute any of the above testimony, and the court was clear that the lubricants were equipment:

In *Capitol Castings,* our supreme court concluded that:

[S]ilica sand, chemical binders, exothermic sleeves, mold cores, mold wash, and hot topping qualify for the exemption because they were used directly in and were an integral part of a qualifying process under A.R.S. § 42–5159(B)(1). The items functioned the way machinery or equipment might in an integrated, synchronized system within the industry.

[citations omitted] Similarly, Chevron's oils and greases are "used directly in" and are "an integral part of" Freeport's mining and metallurgical operations. Moreover, based on the uncontroverted evidence, we conclude that the oils and greases function as equipment in Freeport's operations.[78]

Given what preceded it, the outcome in *Chevron* seemed preordained. However, with a large refund claim, there was probably less flexibility in the ADOR's litigation strategy. Combined with Chevron being self-confident in the outcome, the case went to the Court of Appeals, giving taxpayers one more weapon when seeking these exemptions.

F. Conclusion

With *Capitol 3*, the Arizona judicial view of TPT manufacturing exemptions reversed some temporary backtracking and restored the 40-year period starting with *Duval* of broad interpretation. The ADOR administers Arizona tax law and is not going to capitulate when facing similar cases in the future. But until there are major changes in technology or methodology, it is hard to see what is left to object to, given the recent judicial pronouncements.

Chevron was a refund claim, and the immediate future in this area may be less assessments and more taxpayers believing they have overpaid TPT or use tax on manufacturing equipment sales or purchases and requesting refunds.

ENDNOTES

1 Richard D. Pomp, State & Local Taxation 7-54 (6th ed. 2009).
2 *Id.*
3 *Id.*
4 *Id.*
5 *State ex rel. Ariz. Dep't of Rev. v. Capitol Castings*, 207 Ariz. 445, 448, 451, 88 P3d 159, 162, 165 (2004) ("[t]hroughout its analysis, a court must bear in mind that the goal of the exemption—promoting economic development—must not be frustrated by too narrow an application of [the exemption statute]") (discussed below as *Capitol 3*).
6 A.R.S. §42-5061(A).
7 A.A.C. R15-5-101(A).

[8] A.R.S. §42-5061(B)(1).
[9] A.R.S. §42-5061(B)(2).
[10] A.R.S. §42-5061(B)(4).
[11] A.R.S. §42-5061(B)(8).
[12] A.R.S. §42-5061(B)(10).
[13] A.R.S. §42-5061(B)(17).
[14] A.R.S. §42-5061(B)(13) (tractors and implements to extract milk), §5061(B)(14) (machinery and equipment used in research and development), §42-5061(B)(18) (machinery needed to comply with federal and state environmental regulations), §42-5061(B)(19) (machinery for producing livestock), §42-5061(B)(20) (machinery to allow television stations to transmit signals and to comply with federal telecommunications law) and §42-5061(B)(21) (equipment to process forest products).
[15] *See* A.R.S. §42-5159(B)(1), *et seq*.
[16] A.R.S. §42-5061(C).
[17] A.R.S. §42-5061(C)(1). Janitorial equipment and tools are another category of nonexempt items at A.R.S. §42-5061(C)(2). *See Anamax Mining Company v. Ariz. Dep't of Rev.*, Arizona BOTA (June 1, 1983) (mechanical sweepers are not exempt because they are janitorial equipment).
[18] *See, e.g.,* Phoenix City Code §§14-110(a)(1) and 14-465(g) (2016) (Phoenix provision still exempts income-producing capital equipment but is now defined the same as the state exemption at A.R.S. §42-5061(B)(1)).
[19] A.R.S. §42-5061(W)(2).
[20] A.A.C. R15-5-120(A).
[21] Ariz. Const. Art. IX, §13.
[22] *Ariz. Dep't of Rev. v. Magma Copper Co.,* 138 Ariz. 322, 674 P2d 876 (Ct. App. 1983).
[23] *State Tax Comm'n v. Wallapai Brick & Clay Products,* 85 Ariz. 23, 330 P2d 988 (1958).
[24] *McElhaney Cattle Co. v. Smith,* 132 Ariz. 286, 645 P2d 801 (1982).
[25] *County of Apache v. Southwest Lumber Mills, Inc*., 92 Ariz. 323, 376 P2d 854 (1962).
[26] *CCI Europe, Inc. v. Ariz. Dep't of Rev.*, 237 Ariz. 50, 344 P3d 352 (Ct. App. 2015).
[27] LR 13-011, citing the Oxford English Dictionary.
[28] *Ariz. Dep't of Rev. v. Blue Line Distributing*, 202 Ariz. 266, 43 P3d 214 (Ct. App. 2002).
[29] *Ariz. Dep't of Rev. v. Blue Line Distributing*, 202 Ariz., at 267.
[30] *Meredith Corp. v. State Tax Comm'n*, 23 Ariz. App. 152, 531 P2d 197 (1975).
[31] *Id*., at 153.
[32] *Moore v. Farmers Mut. Mfg. and Ginning Co.*, 51 Ariz. 378, 77 P2d 209 (1938).
[33] *Moore v. Farmers Mut. Mfg. and Ginning Co.*, 51 Ariz. at 382.
[34] *Meredith Corp. v. State Tax Comm'n*, 23 Ariz. App. at 154. *See also Main Street Food Co. v. Ariz. Dep't of Rev.* Arizona BOTA (Feb. 10, 1998) (cooling products to a marketable temperature is processing).
[35] *Ariz. Dep't of Rev. v. Sonee Heat Treating Corp.,* 178 Ariz. 278, 872 P2d, 682 (Tax Ct. 1994).
[36] *Id*., at 279.
[37] TPR 94-2.
[38] *See Qwest Dex, Inc. v. Ariz. Dep't of Rev*., 210 Ariz. 223, 109 P3d 118 (Ct. App. 2005).
[39] *Duval Sierrita Corp. v. Ariz. Dep't of Rev.,* 116 Ariz. 200, 168 P2d 1098 (Ct. App. 1977).
[40] *Id*., at 205.
[41] *Id*., at 206.
[42] *Id*., at 204–205.
[43] *State Tax Comm'n v. Anderson Development,* 117 Ariz. 555, 574 P2d 43 (Ct. App. 1977).
[44] *See Sturm, Ruger & Co. v. Ariz. Dep't of Rev*., Arizona BOTA (Nov. 15, 1995) (wax and ceramic castings used to cast metal products such as firearms and golf club head were equipment used directly in manufacturing and exempt); *AlliedSignal Laminate Systems v. Ariz. Dep't of Rev.*, Arizona BOTA (Mar. 24, 1998) (chemicals used to produce printed circuit boards are used directly in manufacturing); *Yuma Cooling Co. v. Ariz. Dep't of Rev.*, Arizona BOTA (Nov. 15, 1994) (wood pallets used to unload and facilitate the moving of produce being processed are used directly in processing); *Liquid Air, Inc. v. Ariz. Dep't of Rev.*, Arizona BOTA (Feb. 23, 1989) (processing containers for converting liquid nitrogen to a gaseous state were used directly in manufacturing); *Main Street Food Co. v. Ariz. Dep't of Rev.,* Arizona BOTA (Feb. 10, 1998) (dairy cases and pallets used to move products and laboratory equipment used to test bacteria levels throughout the production process are used directly in processing); *Sun Land Beef Co. v. Ariz. Dep't of Rev.*, Arizona BOTA (Mar. 11, 1997) (convertors that transport boxed meat to storage are used directly in processing meat); *New Times, Inc. v. Ariz. Dep't of Rev.*, Arizona BOTA (May 27, 1993) (computer, servers and software producing material to publish a newspaper are used directly in manufacturing); and *Anamax Mining Co. v. Ariz. Dep't of Rev.*, Arizona BOTA (June 1, 1983) (chemicals, kerosene, grinding balls, rods, drill bits and steel roofing mats were used directly in mining).
[45] *RenalWest v. Ariz. Dep't of Rev.,* 189 Ariz. 409, 943 P2d 769 (Ct. App. 1997).
[46] *Id*., at 414.
[47] *Id*.
[48] *Liquid Air, Inc. v. Ariz. Dep't of Rev.*, Arizona BOTA (Feb. 23, 1989) (processing containers for converting liquid nitrogen to a gaseous state were manufacturing equipment); *Weico Corp. v. Ariz. Dep't of Rev.*, Arizona BOTA (July 30, 1991) (car washing equipment was not processing or manufacturing); *Sundt Corp. v. Ariz. Dep't of Rev.*, Arizona BOTA (Apr. 23, 1991) (equipment and material used to building tailings dam, tailings pond and reclamation pond for use in mining are exempt as machinery and equipment used directly in the process of mining); *Granite Construction v. Ariz. Dep't of Rev.*, Arizona BOTA (Aug. 30, 1988) (equipment, including bulldozers, motor graders and scrapers used to remove excess materials in open pit mining are exempt as machinery and equipment used directly in mining); *GB Investment v. Ariz. Dep't of Rev.*, Arizona BOTA (June 20, 1989) (bakery, butcher shop and delicatessen equipment leased to grocery stores for use in their respective butcher, bakery and delicatessen departments was equipment used in manufacturing or processing and exempt); *Wendy's of Tucson v. Ariz. Dep't of Rev.*, Arizona BOTA (June 19, 1990) (equipment used in fast food restaurants is not used for manufacturing or processing); and *Cyprus Bagdad v. Ariz. Dep't of Rev.*, Arizona BOTA (June 26, 1990) (air boat used to maintain a scaffolding structure on a mine tailing dam is not mining equipment).
[49] *Cyprus Sierrita Corp. v. Ariz. Dep't of Rev.*, Arizona BOTA (Apr. 7, 1992) (chemicals used in the production of copper are machinery directly use in mining).
[50] Appeals from BOTA to the Arizona Tax Court are *de novo* and not on the record so the court did not technically affirm its decision. But it ruled the same way as BOTA and the taxpayer prevailed.
[51] *Anamax Mining Co. v. Ariz. Dep't of Rev.*, Arizona BOTA (June 1, 1983).
[52] *Cyprus Bagdad v. Ariz. Dep't of Rev.*, Arizona BOTA (June 26, 1990).
[53] *Cyprus Sierrita Corp. v. Ariz. Dep't of Rev.*, Arizona BOTA (Apr. 7, 1992).
[54] *Liquid Air, Inc. v. Ariz. Dep't of Rev.*, Arizona BOTA (Feb. 23, 1989).
[55] *Ariz. Dep't of Rev. v. Cyprus Sierrita Corp.*, 177 Ariz. 301, 867 P2d 871 (Tax Ct. 1994).
[56] *Id*., at 304.
[57] *Anamax Mining Co. v. Ariz. Dep't of Rev.*, Arizona BOTA (June 1, 1983).
[58] *State v. Capitol Castings, Inc.,* 193 Ariz. 89, 970 P2d 443 (Ct. App. 1998).
[59] *Id*., at 94.
[60] *Id*., at 95.
[61] A.R.S. §42-5061(C)(1) (A.R.S. §42-5159(C)(1) for use tax).
[62] *State v. Capital Castings, Inc.,* 205 Ariz. 258, 69 P3d 29 (Ct. App. 2003).
[63] *Id*.
[64] *State v. Capitol Castings, Inc.,* 207 Ariz. 445, 88 P3d 159 (2004).
[65] *Id*., at 449.
[66] *Id*., at 450.
[67] *Id*., at 451.
[68] LR 13-011 (July 30, 2013) (equipment used to produce activated carbon, including bulk bag unloaders, feed elevators, feed conveyors, reactivations furnaces, *etc.*, were exempt machinery used in manufacturing); LR 04-008 (Oct. 21, 2008) (various equipment used to process waste demolition material into reusable construction were exempt machinery used in manufacturing); LR 06-001 (Jan. 24, 2006) (treating well water to make it suitable for drinking is processing as that term is commonly understood, numerous items are machinery are directly used in processing); LR 08-008 (Oct. 14, 2008) (nitrogen and argon gas used in producing industrial products are machinery used directly in manufacturing); and LR 07-002 (Apr. 13, 2007) (over one hundred types of equipment used to treat wastewater were exempt under various sections of A.R.S. §42-5061).
[69] In an unpublished Court of Appeals decision,

No Time, Inc. v. Ariz. Dep't of Rev., 1 CA–TX 04–0010, 2005 WL 4891675 (Ct. App. 2005), the court cited *Capitol 3* in holding that back-up generators leased to telecommunications companies were "carrier equipment" which was exempt from the TPT on leasing tangible personal property.

[70] *Microchip Technology Corp. v. State*, 230 Ariz. 303, 283 P3d 34 (Ct. App. 2012).
[71] *Id*., at 307–308.
[72] *Id*., at 308.
[73] *CCI Europe, Inc. v. Ariz. Dep't of Rev.,* 237 Ariz. 50, 344 P3d 352 (Ct. App. 2015).
[74] A.A.C. R15-5-1303(A).
[75] *CCI Europe, Inc. v. Ariz. Dep't of Rev.,* 237 Ariz. at 55.
[76] *Chevron U.S.A., Inc. v. Ariz. Dep't of Rev.,* 238 Ariz. 519, 363 P3d 136 (Ct. App. 2015).
[77] *Chevron U.S.A., Inc. v. Ariz. Dep't of Rev.,* 238 Ariz. 519, 363 P3d at 140.
[78] *Id*., at 140–141.