Much Ado About *UCC II*: Analyzing the Recent Dow Case

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Contrary to early concerns, the recent Second Circuit opinion in *Union Carbide Corp.* (*UCC II*) merely reinforces the status quo allowing taxpayers to claim any supply cost for qualified supplies used in their qualified research. The taxpayers tried to claim all supplies of the kind used in their research without identifying which supplies were used. Although the taxpayers ultimately lost, the Second Circuit's holding is a gain for taxpayers generally.

On September 7 the Second Circuit issued a decision (*UCC II*) affirming the Tax Court on appeal in *Union Carbide Corp. v. Commissioner*.[1] The original 2009 Tax Court decision (*UCC*) examined a Dow Chemical subsidiary's claim of the credit for increasing research activity under section 41.[2] The original case was an expansive analysis of the credit, shaping and reinforcing issues ranging from the definitions of qualified research and expenses to substantiation. Despite some immediate reactions by commentators, *UCC II* only affirms — both legally and analytically — the Tax Court's holding in *UCC*: Dow may have lost, but taxpayers still came out on top.

Background of *UCC*

At issue in the case were 106 projects from the 1994 and 1995 tax years that had not previously been claimed on the taxpayer's original return.[3] Those projects included more than $200 million in additional qualified research expenditures (QREs), the bulk of which were supply costs used to produce goods for sale.[4]

Union Carbide Corp., which was purchased by Dow in 2001, is a chemical manufacturer that used a process known as hydrocarbon cracking — the decomposition and recombination of hydrocarbon molecules like those found in oil. Their products included ethylene and polyethylene. Union Carbide's manufacturing processes are resource-intensive, requiring significant supply costs to achieve the desired chemical reactions. The hydrocarbon cracking process invariably produced some unwanted chemical byproducts, such as coke that builds up in the machinery and required periodic plant shutdowns and caused other inefficiencies.[5]

The five projects at issue in *UCC* were improvements to manufacturing processes that produced the products Union Carbide held for sale; those five projects constituted the largest of the 106 projects at issue.[6] On examination, the Tax Court determined that two of the five were qualified.[7]

The tax credit for increasing research activity defines qualified research in section 41(d) and accompanying regulations as:

> 1. being undertaken to discover information that is intended to eliminate uncertainty concerning the development or improvement of a business component[8];
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> 2. being undertaken to discover information that is technological in nature[9];
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> 3. applicable to and useful in developing a new and improved business component of the taxpayer[10]; and
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> 4. constituting experimentation that relates to a qualified purpose.[11]

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[1]No. 11-2552 (2d Cir. 2012), *Doc 2012-18723*, *2012 TNT 175-19* (*UCC II*).

[2]T.C. Memo. 2009-50, *Doc 2009-5285*, *2009 TNT 45-5* (*UCC*).

[3]The 106 research projects on which the court's opinion was based were in addition to the research projects that comprised the company's original research tax credit claim. Those initial projects were part of a settlement and were uncontested during the course of the trial. *See UCC*, T.C. Memo. 2009-50, at 8, n.5.

[4]*Id.* at 14.

[5]*Id.* at 20-21.

[6]*E.g.*, polyethylene pellets that were manufactured using the qualified UCAT-J project (*id.* at 60-106).

[7]*UCC*, T.C. Memo. 2009-50, at 204-244.

[8]*See* section 41(d)(1)(A) (requiring that expenditures be eligible for treatment under section 174, which requires uncertainty); reg. section 1.41-4(a)(3)(i) (defining uncertainty).

[9]Section 41(d)(1)(B)(i).

[10]Section 41(d)(1)(B)(ii).

[11]Section 41(d)(1)(C).

The original *UCC* decision is pro-taxpayer for many reasons, including that it forcefully anchored the definition of uncertainty in reg. section 1.41-4(a)(3) — that ''uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the business component, or the appropriate design of the business component.''[12] Regarding uncertainty, the Tax Court clearly laid to rest the defunct discovery test standards and stated:

> Before the promulgation of sec. 1.41-4(a)(3)(ii), Income Tax Regs., we held that this test had a ''discovery'' component that was to be construed more narrowly than the discovery test of sec. 174 and required that the taxpayer discover information that went beyond the current state of knowledge in the relevant field. *Norwest Corp. & Subs. v. Commissioner, supra* at 493; *Eustace v. Commissioner, supra.* However, the current regulations provide that ''[a] determination that research is undertaken for the purpose of discovering information that is technological in nature does not require the taxpayer be seeking to obtain information that exceeds, expands or refines the common knowledge of skilled professionals in the particular field of science or engineering in which the taxpayer is performing the research.'' While these regulations apply to years ending on or after Dec. 31, 2003, sec. 1.41-4(e), Income Tax Regs., [the Service] has taken the position that he will not challenge return positions that are consistent with these final regulations and therefore that the current regulation should govern the outcome of this case, see T.D. 9104, 2004-1 C.B. 406, 410.[13]

Just as crucial, however, was the Tax Court's holding on the business component test, and how it relates to the supplies that were ultimately at issue in *UCC II*.

Union Carbide's research related to process improvements — decreasing unwanted byproducts and more efficient production — and those processes resulted in the creation of various products held for sale. The processes were found to be qualified, but the products themselves were not.[14] The distinction between process and product helped shape the research tax credit legal landscape that has been in place since 2009, and should have already been incorporated into the best practices of taxpayers and practitioners.

Union Carbide is a chemical manufacturer, and the production of chemicals requires significant supply costs. Supply costs can be QREs under section 41(b)(2)(A)(ii) if they are ''amounts paid or incurred for supplies used in the conduct of qualified research.'' The qualified research in *UCC* related to improvements in the manufacturing processes but not the products themselves. Thus, the court found that supplies that were used in the production of products, and would have been consumed regardless of the process improvements, did not relate to the qualified business component of process improvements. Equally important, supplies that would not have been used but for the process improvements were qualified. The Tax Court's holding states:

> When section 41(d)(2)(C) applies and the relevant business component is the process, and production of the product alone would not constitute qualified research, we find that the costs of supplies that would be purchased and wages attributable to services that would have been provided regardless of whether research was being conducted are costs associated with the product business component and are not incurred in the conduct of qualified research. *However, additional supplies costs incurred because qualified research is being performed on the process or wages attributable to services that would not normally have been provided are attributable to the process business component and are allowable as QREs if they otherwise satisfy section 41(b).*[15]

Union Carbide failed to demonstrate to the Tax Court that it had purchased any supplies specifically for the development of the new production process, and it failed to identify supplies that would not have been used during ordinary product production regardless of the research.[16] Had Union

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[12]Reg. section 1.41-4(a)(3)(i).

[13]*UCC*, T.C. Memo. 2009-50, at 191-192, n.42.

[14]*Id.* at 275 (''Production activities are associated with the separate, non-experimental, product business components. Accordingly, only the costs of supplies and wages that relate to UCC's research activities, not production activities, may be QREs''). *Id.* at 276-277 (''Congress intended to allow taxpayers research credits for research performed to improve their production processes, but Congress did not intend for all of the activities that were associated with the production process to be

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eligible for the research credit if the taxpayer was performing research only with respect to the process not the product. See sec. 1.41-4(b)(1), Income Tax Regs. Here, the disputed supplies were raw materials used in the commercial production and sale of finished products. They were used to make products for sale, not for experimentation'').

[15]*Id.* at 278 (emphasis added).

[16]*Id.* at 282 (''Instead of calculating the costs of supplies that UCC used specifically to perform experiments during production or analyze data, petitioner's calculations are founded on the assumption that UCC did not increase its supplies costs during the claim projects above its normal raw materials costs used in its plan cost system to compute cost of goods sold. It does not

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Carbide either purchased supplies specifically for its qualified process improvement research, or identified the costs of supplies used in that research, those costs would have been QREs. The court stated:

> This indicates that petitioner *has not allocated its claimed QREs between the experimental process business components and the non-experimental product business components of these projects*. Furthermore, petitioner did not distinguish between activities that constitute elements of a process of experimentation and ordinary production activities. We find that the claimed supplies costs are ordinary production costs that were properly included in inventory and petitioner has not satisfied its burden of proving that the costs it claims as supplies QREs were used in the conduct of qualified research as required by section 41(b)(2)(A)(ii).[17]

The supplies used for the production process that the qualified research was intended to improve were found to be ''at best, indirect research costs excluded from the definition of QREs under section 1.41-2(b)(2), Income Tax Regs.''[18]

It was on this issue — whether all production supply costs, or only those used in qualified research, were QREs — that Union Carbide and its parent, Dow, appealed.

Holding of *UCC II*

The Second Circuit affirmed the Tax Court's decision.[19] At the beginning of its opinion, the Second Circuit helpfully states the issue, and its conclusion:

> The Tax Court held that UCC was not entitled to research credits for the entire amount spent for the supplies. Instead, as the Commissioner argues, it was entitled to a credit for only those additional supplies that were used to perform the research. *We agree*.[20]

The bulk of the *UCC II* discussion focuses on section 41(b)(2)(A)(ii), quoted above, which allows QREs for supplies ''used in the conduct of qualified research.'' Union Carbide argued that all supplies, not only those used for the qualified research, were QREs because the supplies were used ''in the conduct of qualified research'' into the qualified processes; the company argued that the word ''used'' should be interpreted in terms of the dictionary definition: put into action or service, employ, carry out a purposes or action by means of, make instrumental to an end or process, utilize, expend or consume by putting to use, apply, and any putting to service of a thing.[21]

The Second Circuit, in keeping with the Tax Court's holding, commented that: ''This dictionary definition underlies UCC's argument that it is entitled to a credit for supplies that it would not have purchased absent any research *and* for supplies that it would have purchased in any event and that were used to make a product for sale.''[22] Although one could, hypothetically, apply an expansive definition of the term ''use'' to include all supplies tangentially involved in qualified research, including those used in the underlying unimproved process, the Second Circuit observed that ''at first blush, this suggests that the statute only covers costs for supplies purchased for the purpose of conducting qualified research.''[23] In its decision, the court took the more sensible approach adopted by the Tax Court, and by the IRS at reg. section 1.41-2(b)(1):

> Expenditures for supplies or for the use of personal property that are indirect research expenditures or general and administrative expenses do not qualify as in-house research expenses.[24]

In keeping with the Tax Court, the Second Circuit found that:

> The issue is whether UCC's costs for the supplies used during these projects that would have been used in the course of UCC's manufacturing process regardless of any research performed qualify as ''an amount paid or incurred for supplies used in the conduct of qualified research.'' We hold that the costs for such supplies are not creditable.[25]

Qualified supply expenses are those that are used in the conduct of qualified research, and the court appropriately held that ''affording a credit for the costs of supplies that the taxpayer would have incurred regardless of any qualified research it was conducting simply creates an unintended windfall.''[26]

Some early commentators have taken the language of the Second Circuit and come to the incongruous and incomplete conclusion that supplies

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appear that petitioner had any additional supplies QREs to claim because petitioner claims as QREs only the raw material costs of the finished products and not any additional supplies'').

[17]*Id.* at 282-283 (emphasis added).

[18]*Id.* at 276.

[19]*UCC II*, at 9.

[20]*Id.* at 2 (emphasis added).

[21]*Id.* at 5.

[22]*Id.* at 6 (emphasis in the original).

[23]*Id.*

[24]*Id.* at 7, quoting reg. section 1.41-2(b)(1).

[25]*Id.* at 5.

[26]*Id.* at 9.

purchased for use in the production of existing products are not qualified research expenses.[27] Apparently, some taxpayers are concerned that the appellate decision departs from the Tax Court decision by creating a new supply cost exclusion based on the original purpose of the supplies. These commentators argue that the Second Circuit would exclude QREs for all supplies bought for a nonqualified purpose, even if the supplies are used in qualified research and their costs tracked to the research. This interpretation is not sustainable in light of the posture of *UCC II* and the relevant law.

The Tax Court in *UCC* denied deductions for Union Carbide's supply expenses because of a lack of nexus — there was no linkage between the supplies claimed and the qualified projects. To the extent that the supplies were part of the process that Union Carbide was improving, they were at best indirect costs. The Second Circuit in *UCC II* explicitly upholds the Tax Court's decision, agreeing that there must be a direct link between qualified research and the supplies claimed; it merely repeats and clarifies the original holding that the mere use of supplies in a process that is being improved does not render those supplies, absent nexus with the research itself, QREs. The court's decision to allow the allocation of supply costs directly linked to qualified business components is also supported by other court opinions.[28]

Conclusion

Union Carbide and Dow lost both at the Tax Court and at the Second Circuit. They failed to show nexus between supplies purchased and qualified research, and they took an alternate position on the definition of the statutory term ''used.'' The common thread of analysis for what is and is not a qualified research supply cost, of which *UCC* and *UCC II* are part, requires that only supplies directly used in the qualified research of a business component are creditable.[29]

The loss for Dow is a huge gain for taxpayers, reinforcing what courts and tax practitioners have known since the *UCC* decision — if a taxpayer can demonstrate that supplies were used and consumed in direct connection with a qualified business component, and identify those specific costs, those supplies are creditable, regardless of whether they were originally intended for non-research purposes.[30] ''How much better is it to weep at joy than to joy at weeping!''[31]

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[27]*See, e.g.*, Patrick Temple-West and Ernest Scheyder, ''Dow Chemical Loses U.S. Court Test of R&D Tax Credits,'' Reuters (Sept. 7, 2012).

[28]*See TG Missouri Corp. v. Commissioner*, 133 T.C. 278 (2009), *Doc 2009-24993*, *2009 TNT 217-9*; *Trinity Indus. Inc. v. United States*, 691 F. Supp.2d 688 (N.D. Tex. 2010), *Doc 2010-2781*, *2010 TNT 25-16*; *Trinity Indus. Inc. v. United States*, No. 3:06-cv-0726-N (N.D. Tex. May 11, 2012).

[29]*See TG Missouri*, 133 T.C. 278, holding that molds used in the production of automotive parts were creditable supply costs when used in qualified research because they were not depreciable in the taxpayer's hands; *Trinity Indus.*, 691 F. Supp.2d 688, holding that supplies incorporated into a ship that itself was substantially all the product of qualified research were creditable; and *Trinity Indus. Inc.*, No. 3:06-cv-0726-N, repeating that supplies incorporated into a ship that was substantially all the product of qualified research were creditable, although the projects at issue were not themselves qualified.

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[30]Not to mention a definitive burial of the discovery test.

[31]William Shakespeare, *Much Ado About Nothing*, Act 1, Scene 1.