

**NOT FOR PUBLICATION WITHOUT THE APPROVAL OF
THE TAX COURT COMMITTEE ON OPINIONS**

BASF WYANDOTTE CORPORATION,)	TAX COURT OF NEW JERSEY
)	DOCKET NO. 002985-1997
Plaintiff-Counterclaim)	DOCKET NO. 000624-1998
Defendant,)	
)	
v.)	
)	
TOWNSHIP OF SOUTH BRUNSWICK,)	
)	
Defendant-Counterclaim)	
Plaintiff.)	
)	
TOWNSHIP OF SOUTH BRUNSWICK,)	TAX COURT OF NEW JERSEY
)	DOCKET NO. 001050-1999
Plaintiff,)	DOCKET NO. 000235-2000
)	
v.)	
)	
BASF WYANDOTTE CORPORATION,)	OPINION
)	
Defendant.)	
)	

Decided: February 4, 2020

Harry Haushalter, Esq., for counterclaim-plaintiff/plaintiff
Township of South Brunswick

Seth I. Davenport, Esq., for counterclaim-defendant/defendant
BASF Wyandotte Corporation

DeALMEIDA, J.T.C. (t/a)

This is the court's opinion after trial in the above-referenced matters. At issue is the valuation for local property tax purposes of real property on which was located a chemical processing plant. The municipality claims the assessments on the property for tax years 1997 through 2000 are erroneous because they do not include the true market value of certain

machinery and equipment on the property that must be treated as real property for purposes of local taxation pursuant to N.J.S.A. 54:4-1. For the reasons stated more fully below, the assessments for each tax year are affirmed.

I. Findings of Fact

During the years in question, BASF Wyandotte Corporation (“BASF”) owned a parcel of land in South Brunswick Township. The property is 34.728 acres designated by the township as Block 15.03, Lot 51 and commonly known as 1059-1063 Cranbury-South River Road. On the relevant valuation dates, the property was operated as a chemical processing plant with numerous buildings aggregating approximately 250,000 square feet, as well as additional site facilities, tanks, foundations, paving, an unused wastewater treatment facility, and other improvements. The plant included styrene and pentane unloading facilities, twenty-four chemical reactors, two product-drying complexes, a cooling tower, a central packing complex, and associated wiring and piping. These features, which are comprised of ninety-seven pieces of machinery and equipment which will be discussed in greater detail below, were used to produce expandable polystyrene (EPS) beads, then the most widely used foam insulating material in the construction industry.

For tax years 1997, 1998, 1999, and 2000, the property was assessed as follows:

Land	\$ 2,778,200
Improvement	<u>\$12,858,900</u>
Total	\$15,637,100

The Chapter 123 average ratio for South Brunswick Township for tax year 1997 is 102.56%. When the average ratio is applied to the assessment, the implied equalized value of the subject property for that tax year is \$15,246,782 ($\$15,637,100 \div 1.0256 = \$15,246,782$).

The Chapter 123 average ratio for South Brunswick Township for tax year 1998 is 104.77%. When the average ratio is applied to the assessment, the implied equalized value of the subject property for that tax year is \$14,925,169 ($\$15,637,100 \div 1.0477 = \$14,925,169$).

The Chapter 123 average ratio for South Brunswick Township for tax year 1999 is 102.96%. When the average ratio is applied to the assessment, the implied equalized value of the subject property for that tax year is \$15,187,548 ($\$15,637,100 \div 1.0296 = \$15,187,548$).

The Chapter 123 average ratio for South Brunswick Township for tax year 2000 is 102.94%. When the average ratio is applied to the assessment, the implied equalized value of the subject property for that tax year is \$15,190,499 ($\$15,637,100 \div 1.0294 = \$15,190,499$).

It is undisputed the assessments do not include the true market value of any machinery and equipment at the subject property. BASF filed complaints seeking a reduction in the assessments for tax years 1997 and 1998. South Brunswick filed counterclaims seeking to increase the assessments for those tax years. The municipality thereafter filed complaints seeking to increase the assessments for tax years 1999 and 2000. No counterclaims were filed by the taxpayer for those years. Prior to trial, the taxpayer withdrew its complaints, leaving South Brunswick as the only party challenging the assessments for the tax years at issue.

The matters were tried over twenty-one days.¹ Post-trial briefing identified the following unresolved issues:

1. Which, if any, machinery and equipment at the subject property is real property subject to local property tax pursuant to N.J.S.A. 54:4-1?

¹ At the conclusion of trial, the court reserved decision. The judge who tried the matters subsequently retired without issuing an opinion. The taxpayer thereafter moved for a mistrial and requested the matters be tried before another judge of this court. The township opposed that motion. The court denied the taxpayer's motion and the matter was assigned to the author of this opinion for decision based on the trial record.

2. The parties stipulated to the true market value of the machinery and equipment at the subject property, in the event the court determines any of it is subject to local property tax. However, with respect to some of the machinery and equipment, the parties stipulated to two values: the value installed (including transportation and installation costs) and the value uninstalled. The court must determine which of the two values should be included in the assessments.

3. The parties' stipulation with respect to the true market value of the machinery and equipment reflects the physical depreciation of the machinery and equipment. The court must determine whether functional obsolescence and external obsolescence must also be considered and, if so, must determine the effect those forms of obsolescence have on the value of the machinery and equipment.

4. With respect to valuing the remainder of the subject property, the parties reached a number of stipulations: (a) the highest and best use of the subject property is the use in place on the valuation dates; (b) the cost approach is the exclusive approach to valuing the subject property; and (c) the true market value of the land. The court, however, must determine the true market value of the improvements at the subject property.

5. Finally, the court must determine whether entrepreneurial profit must be included when determining the value of the subject property under the cost approach. If so, the court must determine the effect of entrepreneurial profit on the subject property's true market value.

The issues are addressed in turn below.

II. Conclusions of Law

The court's analysis begins with the well-established principle that "[o]riginal assessments . . . are entitled to a presumption of validity." MSGW Real Estate Fund, LLC v. Borough of Mountain Lakes, 18 N.J. Tax 364, 373 (Tax 1998). As Judge Kuskin explained, our Supreme Court defined the parameters of the presumption as follows:

[t]he presumption attaches to the quantum of the tax assessment. Based on this presumption the appealing taxpayer has the burden of proving that the assessment is erroneous. The presumption in

favor of the taxing authority can be rebutted only by cogent evidence, a proposition that has long been settled. The strength of the presumption is exemplified by the nature of the evidence that is required to overcome it. That evidence must be “definite, positive and certain in quality and quantity to overcome the presumption.”

[Ibid. (quoting Pantasote Co. v. City of Passaic, 100 N.J. 408, 413 (1985) (citations omitted)).]

The presumption of correctness arises from the view “that in tax matters it is to be presumed that governmental authority has been exercised correctly and in accordance with law.” Pantasote, 100 N.J. at 413 (citing Powder Mill, I Assocs. v. Twp. of Hamilton, 3 N.J. Tax 439 (Tax 1981)); see also Byram Twp. v. W. World, Inc., 111 N.J. 222 (1988). The presumption remains “in place even if the municipality utilized a flawed valuation methodology, so long as the quantum of the assessment is not so far removed from the true value of the property or the method of assessment itself is so patently defective as to justify removal of the presumption of validity.” Transcon. Gas Pipe Line Corp. v. Twp. of Bernards, 111 N.J. 507, 517 (1988) (citation omitted).

“In the absence of a R. 4:37-2(b) motion . . . the presumption of validity remains in the case through the close of all proofs.” MSGW Real Estate Fund, LLC, 18 N.J. Tax at 377. In making the determination of whether the presumption has been overcome, the court should weigh and analyze the evidence “as if a motion for judgment at the close of all the evidence had been made pursuant to Rule 4:40-1 (whether or not the defendant or plaintiff actually so moves), employing the evidentiary standard applicable to such a motion.” Ibid. The court must accept as true the proofs of the party challenging the assessment and accord that party all legitimate favorable inferences from that evidence. Id. at 376 (citing Brill v. Guardian Life Ins. Co. of Am., 142 N.J. 520, 535 (1995)). In order to overcome the presumption, the evidence must be “sufficient to determine the value of the property under appeal, thereby establishing the existence

of a debatable question as to the correctness of the assessment.” Lenal Props., Inc. v. City of Jersey City, 18 N.J. Tax 405, 408 (Tax), aff’d, 18 N.J. Tax 658 (App. Div. 1999).

Only after the presumption is overcome with sufficient evidence at the close of trial must the court “appraise the testimony, make a determination of true value and fix the assessment.” Rodwood Gardens, Inc. v. City of Summit, 188 N.J. Super. 34, 38-39 (App. Div. 1982) (citations omitted). If the court determines that sufficient evidence to overcome the presumption has not been produced, the assessment shall be affirmed and the court need not proceed to making an independent determination of value. Ford Motor Co. v. Twp. of Edison, 127 N.J. 290, 312 (1992); Global Terminal & Container Servs. v. City of Jersey City, 15 N.J. Tax 698, 703-704 (App. Div. 1996).

At this stage of the analysis, the court is required to give the evidence produced by the party challenging the assessments, in this case the municipality, every favorable inference. Dolson v. Anastasia, 55 N.J. 2, 5 (1969). The court is concerned with the existence of the evidence, not the weight to which it is entitled. Id. at 5-6. Giving the testimony of the township’s expert every favorable inference, sufficient evidence was introduced to raise a debatable question regarding the correctness of the assessments. If taken as true, the expert’s testimony establishes that the true market value of numerous items of machinery and equipment that qualify as real property pursuant to N.J.S.A. 54:4-1 should have been, but was not, included in the assessments on the subject property for the relevant tax years. A second expert testified the true market value of the machinery and equipment omitted from the assessments is significant.

Having determined that the presumption of validity attached to the assessments has been overcome, it is the court’s obligation to determine which machinery and equipment at the subject property, if any, is subject to local property tax, the true market value of that machinery and

equipment, and the true market value of the entire subject property on the four relevant valuations dates: October 1, 1996, October 1, 1997, October 1, 1998, and October 1, 1999.

A. Which, If Any, Machinery and Equipment at the Subject Property is Real Property Subject to Local Property Tax Pursuant to N.J.S.A. 54:4-1?

Each municipal tax assessor must each year “determine the full and fair value of each parcel of real property situate in the taxing district at such price as, in his judgment, it would sell for at a fair and bona fide sale by private contract on October 1” of the pretax year. N.J.S.A. 54:4-23. Because personal property is not included in the annual assessment, New Jersey draws a legislatively defined distinction between real property and personal property for local property tax purposes. N.J.S.A. 54:4-1 provides as follows:

All property real and personal within the jurisdiction of this State not expressly exempted from taxation or expressly excluded from the operation of this chapter shall be subject to taxation annually under this chapter. Such property shall be valued and assessed at the taxable value prescribed by law.

....

Real property taxable under this chapter means all land and improvements thereon and includes personal property affixed to the real property or an appurtenance thereto, unless:

a.(1) The personal property so affixed can be removed or severed without material injury to the real property;

(2) The personal property so affixed can be removed or severed without material injury to the personal property itself; and

(3) The personal property so affixed is not ordinarily intended to be affixed permanently to real property; or

b. The personal property so affixed is machinery, apparatus, or equipment used or held for use in business and is neither a structure nor machinery, apparatus or equipment the primary purpose of which is to enable a structure to support, shelter, contain, enclose or house persons or property. For purposes of this subsection, real property shall include pipe racks, and piping and

electrical wiring up to the point of connections with the machinery, apparatus, or equipment of a production process as defined in this section.

The two subsections of the statute have been referred to in published opinions as the “a test” and the “b test” of N.J.S.A. 54:4-1.

“Machinery, apparatus or equipment” is defined in N.J.S.A. 54:4-1.15 as “any machine, device, mechanism, instrument, tool, tank or item of tangible personal property used or held for use in business.” The phrase “[u]sed or held for use in business” is defined as “any item of machinery, apparatus or equipment used or held for use in a business transaction, activity, or occupation conducted for profit in New Jersey.” N.J.S.A. 54:4-1.15.

The Supreme Court considered a facial constitutional challenge to N.J.S.A. 54:4-1 in General Motors Corp. v. City of Linden, 150 N.J. 522 (1997). That appeal concerned the assessment for local property tax purposes of an automobile assembly plant and raised the question of whether various items of machinery and equipment at the plant constituted real property. General Motors Corp. v. City of Linden, 13 N.J. Tax 324, 325-26 (App. Div. 1993). This court concluded N.J.S.A. 54:4-1 violated the Uniformity Clause of the State Constitution, N.J. Const., art. VIII, § 1, ¶ 1(a), by preferentially taxing real property owned by business entities. General Motors, 150 N.J. at 525. After the Appellate Division reversed this court's holding, the Supreme Court granted the municipality's motion for leave to appeal. Id. at 525-26.

The Court began its analysis by noting two benchmarks guiding its consideration of the constitutionality of N.J.S.A. 54:4-1:

[o]ne is that the Legislature has broad discretion "in the classification of personal property for exemption or preferential treatment." Switz v. Kingsley, 37 N.J. 566, 586 (1962). The Legislature is free to tax personal property in any way so long as the classifications are reasonable and the property is assessed under general laws and by uniform rules. The other is that the

Uniformity Clause of the New Jersey Constitution places limits on the Legislature's ability to classify real property for purposes of taxation. The Uniformity Clause requires that all real property be "assessed and taxed . . . according to the same standard of value . . . [and] at the general tax rate of the taxing district in which the property is situated."

[Id. at 526 (citation omitted) (alteration in original).]

"The evil that the [Uniformity Clause] sought to cure was the still-favorable [tax] treatment given to one industry, then the railroad industry." League of Municipalities v. Kimmelman, 105 N.J. 422, 433 (1987). "In order to prevent any one industry from receiving favorable treatment through the preferential taxation of its real property, the clause forbids the Legislature from granting exemption or preferential tax status to real property" based on its use in business. General Motors, 150 N.J. at 544 (Handler, J., concurring). "The clause, however, does not bar the Legislature from according preferential tax treatment by classifying personal property." Id. at 545 (Handler, J., concurring) (emphasis omitted). "As a result of that dichotomy, the classification of property that straddles the divide between real and personal property becomes critical for purposes of valid taxation." Ibid.

The Court set forth a detailed discussion of the history of the legislative efforts to define which personal property used in business is real property subject to local taxation and which is not. The Court held that, after a series of amendments to N.J.S.A. 54:4-1 mostly intended to reverse or modify judicial decisions interpreting the provision, the current version of the statute

was intended to restore [the] distinction between business machinery that participates in the business, and business machinery that accommodates the business. The former was business personal property, the latter taxable as real property. An example given of the distinction was of an air conditioning unit that dries the paint of new cars as they leave the assembly area and one that cools an office suite.

[Id. at 532 (citation omitted).]

The Court, however, also noted that

[d]espite several evolutions in its attempt to draw the lines between realty and personalty, we are satisfied that the Legislature has intended to be faithful to the common-law recognition that there are certain forms of personal property so affixed to real property as to be considered a part thereof. It enacted [N.J.S.A. 54:4-1] to give verbal form to its understanding.

[Id. at 536.]

The Court explained that a strict application of subsection (b) of N.J.S.A. 54:4-1 was not intended by the Legislature:

[a]lthough the syntax of the statute suggests an intent to grant an exemption for real property used in business, we believe the Legislature did not intend that the b test override the a test in circumstances in which affixed personal property would otherwise be taxable as real property under the a test. That is to say, the a and b tests do not present entirely separate hurdles to surmount before an item of personal property is taxable as real property. [N.J.S.A. 54:4-1] attempted to describe two classes of personal property that, although affixed, do not become real property for purposes of real property taxation.

[Ibid.]

The Court continued,

[t]here is first a general class of affixed property, with characteristics of severability without material injury (to either itself or the realty) and the absence of an intention that it remain part of the realty. A second, more specific class of personal property consists of affixed personal property that is “machinery, apparatus, or equipment” used or held for use in business. The characteristics of this class may overlap the elements of severability and absence of an intention that it remain part of the realty that are found in the a test.

The legislative [history] sustains the conclusion that the b test was not designed to override the a test for the benefit of business interests.

....

The one constant in the evolution of the legislation has been the intent that property traditionally taxed as real property should remain so.

[Id. at 536-37.]

Justice Handler, in a concurring opinion, noted that the statute's

constitutionality is dependent on the fact that the Legislature's treatment of real property is fully consistent with the basic law of fixtures. That law serves to define the category of personal property that has become real property in the constitutional sense through its affixation to existing real property.

[Id. at 544 (Handler, J., concurring).]

To hold otherwise would afford the Legislature "a broad discretion unbounded by constitutional limits to define items as either fixtures (realty) or personalty" through which it could "define all property it sought to treat favorably as personal property." Id. at 547 (Handler, J., concurring). In order to ensure that N.J.S.A. 54:4-1 does not transgress constitutional strictures, the Court's majority opinion "requires all property to pass the a test (or material-injury test) before being accorded personal-property status" under either prong of the statute. Id. at 548 (Handler, J., concurring).

In light of the holding in General Motors, as elucidated by Justice Handler's concurring opinion, this court rejects BASF's argument that machinery and equipment at the subject property is excluded from taxation as real property if it satisfies the b test of N.J.S.A. 54:4-1, regardless of whether that machinery and equipment satisfies the a test of the statute. If the machinery and equipment at the subject property does not satisfy the material injury and intent elements of the a test of N.J.S.A. 54:4-1, it constitutes real property for local property tax purposes, regardless of whether it satisfies the b test of the statute. While the b test of N.J.S.A. 54:4-1 appears on its face to constitute a separate test for determining whether machinery,

apparatus, and equipment used in business constitutes real property, this court is bound by the Supreme Court's contrary interpretation of the statute in General Motors. The court, therefore, turns to whether the ninety-seven items of machinery and equipment at issue here are real property for local property tax purposes under N.J.S.A. 54:4-1.

In General Motors Corp. v. City of Linden, 20 N.J. Tax 242 (Tax 2002), this court established detailed procedures for implementation of the holding in General Motors. The court held:

- 1) The defendant municipality has the initial burden of producing evidence that the personal property in issue is, in the words of N.J.S.A. 54:4-1, "affixed to the real property or an appurtenance thereto." If the municipality satisfies this burden, then a rebuttable presumption of taxability is created and the burden of producing evidence shifts to the taxpayer. N.J.R.E. 301; Freehold Twp. v. Javin P'ship, 15 N.J. Tax 88, 95 (Tax 1995), cited with approval in General Motors Corp. v. Linden, 150 N.J. at 530. The taxpayer can then present proofs as to affixation, the a test, the b test, or some or all of these issues.
- 2) The municipality has the burden of persuasion as to affixation;
- 3) If the municipality satisfies its burden of producing evidence on the issue of affixation and the taxpayer relies only on the a test to establish non-taxability, the taxpayer has the initial burden of producing evidence and the burden of persuasion as to non-taxability under the three elements of the a test;
- 4) If the municipality satisfies its burden of producing evidence on the issue of affixation and the taxpayer relies on the b test to establish non-taxability, the taxpayer has the initial burden of producing evidence as to non-taxability under the b test. If the taxpayer sustains that burden, a presumption arises that the three elements of the a test have been satisfied, and the burden of producing evidence as to taxability under both the b test and the a test shifts to the municipality. The taxpayer has the burden of persuasion as to the b test, but the municipality has the burden of persuasion as to taxability under the a test.

5) If the municipality satisfies its burden of producing evidence on the issue of affixation and the taxpayer fails to sustain its burden to produce evidence of nontaxability under the b test, or if the property in issue is specifically categorized by the b test as taxable real property then the taxpayer has the initial burden of producing evidence and the burden of persuasion as to nontaxability under the a test.

[Id. at 265-266 (footnotes omitted).]

Further guidance for applying N.J.S.A. 54:4-1 is found in a regulation of the Director, Division of Taxation (Director):

“Material injury” in the case of real property means serious physical damage to the real property. Some of the factors which can be considered in determining whether “serious physical damage” has occurred are any appreciable change in the market value of the real property as a result of removal, the amount of time and the cost required to repair the condition caused by removal and the hazard or dislocation caused by the removal.

[N.J.A.C. 18:12-10.1.]

During the relevant tax years, the Director also defined “[m]aterial injury” to personal property as “physical damage to the personal property sufficient to destroy its utility.” Ibid., repealed by 50 N.J.R. 664(a) (2018).

With respect to the provision of N.J.S.A. 54:4-1 regarding property “ordinarily intended to be affixed permanently to real property,” the opinion in Chevron U.S.A., Inc. v. City of Perth Amboy, 9 N.J. Tax 205 (Tax 1987), is instructive. There, this court, sitting en banc, explained

[t]he use of the word “ordinarily” before the word “intended” [in N.J.S.A. 54:4-1(a)(3)] shifts the focus of the inquiry from what is actually intended with respect to plaintiff’s refinery, to what is “ordinarily intended” with respect to property in question.

....

[W]e believe that, though not controlling, at least to the extent that they bear on the question of ordinary intent, outward appearances are a relevant consideration in applying [the statute.]

....

[T]his court finds that a reasonable person examining the intricately connected mass of immense structures, piping, wiring, equipment and foundations [contained in Chevron's refinery] would consider that machinery, equipment and process units like those in the photographs are ordinarily intended to be affixed permanently to real property.

....

Much consideration is given to the fact that, even after a close examination of all of the photographs, this court is unable to identify, and believes that a reasonable person would be unable to identify, any features designed or intended to facilitate the plant's removal. Yet surely a reasonable person would agree that, if structures as massive, complex and cumbersome as found at Chevron's refinery were not intended to remain permanently affixed to the realty, they would contain at least some features designed or intended to facilitate removal.

[Id. at 242-44.]

In NYT Cable TV v. Borough of Audubon, 9 N.J. Tax 359, 361 (Tax 1987), aff'd, 230 N.J. Super. 530 (App. Div. 1989), the court applied the "ordinarily intended" test to determine whether a cable television antenna tower was assessable as real property. The court used the objective standard announced in Chevron U.S.A., but clarified that the reasonable person is a person in the industry in question. Id. at 369. A similar approach was employed in R.C. Maxwell Co. v. Twp. of Galloway, 145 N.J. 547, 560 (1996), where the Court considered "billboard industry practices" and noted that "[s]everal pieces of evidence suggest that outdoor advertisers do not ordinarily intend their billboards to remain permanently in place." In the General Motors remand opinion, this court applied "the custom and usage in the automobile assembly industry" and considered "the perceptions of a person familiar with customary

practices in the industry” when determining whether machinery and equipment were ordinarily intended to be permanently affixed. 20 N.J. Tax at 274.

A regulation of the Director reflects these holdings. N.J.A.C. 18:12-10.1 provides:

"[n]ot ordinarily intended to be affixed permanently to real property” means that, in the custom and usage of the trade, like personal property is not intended to be permanently affixed. Indicators that personal property of a like kind is not ordinarily intended to be affixed permanently to real property include the following:

1. In the event of sale of the realty, the personal property would not ordinarily pass with title to the realty;
2. In the case of a business, the personal property ordinarily would be removed from the real property in the event of the relocation of the business; and
3. Similar items of personal property are frequently resold separate from the real property.

It is against the backdrop of these precedents and regulations that the court will examine the machinery and equipment at issue here. The machinery and equipment falls into several broad categories.

1. Unloading and Storage Facilities.

The two principal raw materials for the production of BASF’s marketable products are liquid styrene and liquid pentane. These materials, which are highly flammable, are transported to the subject property by train and truck for processing. The unloading process is accomplished through specialized facilities. Once unloaded, the raw materials are stored in specialized storage tanks until used in the manufacturing process. The storage tanks have a capacity of 100,000 to 150,000 gallons.

Other materials, which function in the manufacturing process as flame retardants, chain modifiers/initiators, nucleating agents, phase stabilizers, formed-bed processing agents, and

coating agents are stored at various locations on the property. The municipality has identified a number of items of machinery and equipment used for the unloading and storage of raw materials and other agents at the subject property it contends are real property for purposes of N.J.S.A. 54:4-1. These items relate to the pentane and styrene loading areas, storage facilities, and instrumentation to pump these ingredients to reactors on the subject property.

2. Reactors and Cooling Tower.

The liquid styrene and liquid pentane are pumped from storage to the process area and charged to a mix tank, along with polystyrene fines recovered during the washing process in prior manufacturing rounds. The resulting mix is committed with other raw materials to create a stirring slurry. In the meantime, an aqueous salt solution is prepared in one of the reactors until the mixture meets manufacturing guidelines. Catalysts are added to the stirring slurry in the mix tank before the contents of the mix tank is transferred to the reactor containing the salt solution.

The resulting liquid slurry in the reactor is heated to initiate the free radical catalyzed polymerization of the styrene. Eventually, two additional chemical agents, including Luviscol, are added to the mixture to stabilize and then allow for the expansion of the polystyrene. Chain termination – the controlled cooling of the reaction mixture – is initiated at the appropriate time to create the desired product. This requisite cooling is carried out in a cooling tower on the subject property.

The EPS beads are thereafter separated from the slurry through centrifugation and decantation. These processes happen in a centrifuge, a machine that applies centrifugal force, and a decanter, a vessel in which sedimentation and thickening take place. Necessary washing of the beads also takes place in the centrifuge. The beads are discharged from the centrifuge to a screw conveyor where they are combined with processing and coating agents and continually fed

to a flash dryer. Flash drying removes external moisture from the beads, which are then cut into various sizes and conditioned after removal of oversized and undersized beads.

There are twenty-four reactors at the subject property the municipality contends are real property for purposes of N.J.S.A. 54:4-1. Sixteen reactors make expandable polystyrene beads; seven are used for storage; and one is used as a reactor/mixing tank that makes an intermediate product. The newest reactors, four installed in the J-45 area in 1998, during the relevant tax years, and two installed in the J-60 area in 1999, also during the relevant tax years, are approximately thirteen feet in diameter, and two stories high. The reactors weigh 120,000 pounds empty and have the capacity to hold 13,000 to 15,000 gallons. Supporting structures must allow for an additional 130,000 pounds when the reactors are full. Because of their height, the reactors poke through a hole in the second floor of the process building.

When BASF replaced reactors during the relevant tax years it was necessary to remove the roof of the building in which they were situated. In the process, parts of the decking on the roof were destroyed, steel grading and columns cut, the sprinkler system and pipe hanger supports removed and reinstalled, instrument supports and hangars relocated, and fireproofing, roof support beams, and steel structural support, including hoist beams for the reactors, removed. After each reactor was removed, an eighteen-foot hole remained in the floor on the second level of the building. BASF cut up and scrapped the removed reactors in order to protect from disclosure its proprietary interest in the reactors. The reactors, however, showed signs of significant wear, including a thinning of the walls of the reactor, which significantly reduced their useful life. The process of removing the existing reactors and installing the new reactors took ten days to two weeks, with twenty-five people per shift working around the clock, at a total cost of \$8.5 million.

The reactors each weigh approximately a quarter of a million pounds when full and require significant and costly support from structural steel components that connect the reactors to the building in which they are located. The reactors sit on steam beams, which form pads. Those beams are also structural. There are no construction features of the buildings or the supports for the reactors suggesting portability. At one point, when new reactors were added to the facility, it was necessary to expand existing buildings to house them. BASF spends considerable sums installing, removing, and maintaining the reactors. The record establishes BASF's significant investment in the reactors reflects the company's intention to have the reactors remain in place until their useful life is exhausted or the cost of maintaining them exceeds their ability to generate a profit.

In addition, the municipality contends the cooling tower on the subject property is real property for purposes of N.J.S.A. 54:4-1. The cooling tower, installed in 1998 and 1999, is seventy-two feet in length and twenty-six feet wide. It has a height of thirty feet. The cooling tower sits on its own foundation as a separate structure and consists of a plastic honeycomb network allowing water to trickle through and become cooled by means of fans, pumps, and a piping network. Another piping network with pumps brings water from the cooling tower to a reactor and back.

3. Dryer Lines.

The two dryer lines identified by the municipality as real property for purposes of N.J.S.A. 54:4-1 are pipe-like devices contained within the cooling tower structure. They extend approximately twenty-three stories high with a building constructed around them. A flash dryer is a vertical pipe where hot air from burners is blown in at the bottom and used to carry the wet beads upward for a drying cycle. From the top of the flash dryer, the beads pass through a bag

house and through downward gravity are fed through floors where they are separated by size through vibrating screens. Once separated by size, the beads are further dried before being dropped into mixers where they are coated with a powder.

4. Central Packaging Facility.

Following coating, the beads are fed into silos in the central packing area. There, the beads are packaged and boxed using machinery and equipment identified by the municipality as real property pursuant to N.J.S.A. 54:4-1.

5. Process Piping and Electrical Wiring.

The municipality has identified as real property pursuant to N.J.S.A. 54:4-1 miles of piping and wiring integrated into the unloading, storage, and manufacturing system at the subject property. Piping and wiring are incorporated into, and are part of, the reactors, dryer lines, cooling tower, and other facilities.

The municipality introduced expert testimony from a chemical engineer familiar with chemical processing for the production of marketable products. He opined the machinery and equipment at issue were affixed to the real property at the subject property in such a way that their removal would cause damage to both the items and the real property. In addition, he testified it is industry custom for machinery and equipment of this type to be permanently installed at a chemical processing facility. While acknowledging there is a market for the resale of some of the used machinery and equipment at the property, he was not aware of an active market for the sale of used reactors. According to the municipality's expert, because there were no major technological changes in the method for producing ESP beads, the machinery and equipment at the subject property was intended to remain permanently affixed until they became unsafe or exhausted their useful life.

The record also contains expert testimony and other evidence suggesting the machinery and equipment, particularly the reactors, would not be materially damaged if removed from the real property. As noted above, there is a secondary market for reactors and other machinery and equipment. While the court finds this evidence persuasive, the court finds the record contains convincing evidence that removal of the machinery and equipment at issue here would materially injure the real property to which it is affixed. This finding is supported by the credible evidence of the significant deconstruction, partial destruction, and need for reconstruction of the buildings housing several reactors that were replaced during the relevant tax years. The court also finds the other machinery and equipment at issue is so thoroughly integrated into the structures and other elements of the real property that their removal would materially injure the real property. Thus, the court concludes that the machinery and equipment at issue cannot satisfy N.J.S.A. 54:4-1(a)(1) and is, therefore, real property for local property tax purposes.

B. Should the Value of the Machinery and Equipment Subject to Local Property Tax Under N.J.S.A. 54:4-1 Reflect its Value Installed or Uninstalled?

The parties stipulated to the following values for machinery and equipment at the subject property:

For all Tax Years

*Indicates In-Exchange or Uninstalled

**Indicates In-Place or Installed

	<u>BASF</u>	<u>So. Brunswick</u>	<u>Stipulation</u>
<u>Luviscol Area of Plant</u>			
Reactor 1			\$ 25,000
Reactor 2			\$ 25,000
Reactor 3			\$ 25,000

Reactor 4	\$ 25,000
Reactor 5	\$ 25,000
Reactor 6	\$ 25,000
Reactor 7	\$ 25,000

J-4 Area of Plant

Reactor 9	\$ 52,000
Reactor 10	\$ 52,000
Reactor 11	\$ 52,000
Reactor 12	\$ 52,000
Reactor 13	\$ 52,000
Reactor 14	\$ 52,000
Reactor 15	\$ 52,000
Reactor 16	\$ 52,000
J-4 Mix Tank	\$ 30,000
Stopping Solution	\$ 50,000
J-4 Buffer	\$ 60,000

J-45 Area of Plant

Stopper System	\$100,000
J-45 Mix Tank	\$ 47,000
J-45 Buffer Tank	\$100,000

J-60 Area of Plant

Reactor 23	\$ 48,000*	\$413,000**
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Reactor 21	\$ 48,000*	\$413,000**	
J-60 Buffer Tank	\$ 54,000*	\$275,000**	
Regrain			\$270,000

Dryer Lines

Dryer Line 3	\$170,000*	\$1,600,000**	
Dryer Line 4	\$420,000*	\$4,300.000**	

Central Packaging

Central Packaging			\$600,000
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For Tax Years 1997 and 1998

J-45 Area of Plant

Reactor 17			\$ 50,000
Reactor 18			\$ 50,000
Reactor 19			\$ 50,000
Reactor 20			\$ 50,000

For Tax Years 1999 and 2000

J-45 Area of Plant

Reactor 17	\$ 50,000*	\$945,000**	
Reactor 18	\$ 50,000*	\$945,000**	
Reactor 19	\$ 50,000*	\$945,000**	
Reactor 20	\$ 50,000*	\$945,000**	

Cooling Tower

Limestone Contactor	\$ 30,000
Conveyor Belt	\$ 15,000
Fluid Bed Dryer	\$ 7,000
Philly Mixer	\$ 20,000
J45/J60 Buffer Tank	\$110,000
Blind Valves	\$ 34,000
Packaging Blower	\$ 35,000
Polishing Blower	\$ 5,000
Dust Collection Blower	\$ 14,000
Blender Weight Hopper	\$ 27,000
Surge Hopper	\$ 27,000
Conveyor Hopper	\$ 11,000
Polishing Over/Under Hopper	\$ 11,000
Cyclone	\$ 31,000
Silo Cyclone	\$ 31,000
Long Term Dryer	\$330,000
Dryer Air Chiller	\$ 35,000
Dust Collector	\$105,000
Reactor Seals	\$250,000
Buffer System	\$160,000
Agitator Shafts	\$540,000
J-60 Reactor	\$1,400,000* \$6,000,000*

Those items with no asterisk indicate a finite assessment number has been agreed upon, subject to the application of functional and external obsolescence, if determined to be appropriate by the court. Those items with an asterisk reflect stipulated values installed and uninstalled.

There are two approaches for determining the value of the machinery and equipment at issue: (1) the replacement cost new, which is the current cost of a similar new item having the nearest equivalent utility as the item being appraised; and (2) true market value in place, which is the estimated value of the asset as installed at the subject property. The latter estimate of value is determined by consideration of the item's original cost, included all soft and indirect costs, including transportation costs, and the cost of labor to install the item, less depreciation to the relevant valuation date. The true market value in place is premised on a hypothetical buyer intending to continue to operate the machinery and equipment at the current location for the purpose for which it was designed.

The court is convinced by the municipality's argument that the most credible approach to valuing the machinery and equipment is to determine its true market value in place. This approach reflects the general approach taken with real property improvements. In addition, the approach was adopted by the court in Chevron U.S.A., Inc. v. City of Perth Amboy, 10 N.J. Tax 114, 136-47 (Tax 1988), when valuing refinery machinery and equipment. This approach is also used in determining the value of certain machinery and equipment of refineries and telecommunications companies in other contexts. See N.J.S.A. 54:4-2.45 ("The true value of taxable tangible personal property used in business owned by a taxpayer shall be presumed to be the original cost of such property less depreciation as of the assessment date") The original cost of the machinery and apparatus includes the amount originally paid for each item, including all soft costs and indirect costs, transportation costs, and the cost of labor for installation.

C. Should the Court Consider Functional Obsolescence and External Obsolescence when Determining the Value of the Machinery and Equipment Subject to Local Property Tax?

Functional obsolescence is the loss in value or usefulness of the property caused by inefficiencies or inadequacies of the asset when compared to more efficient and less costly assets that technology has developed. See BASF Corp. Coating & Ink Div. v. Town of Belvidere, 23 N.J. Tax 551, 571 (Tax 2007) (discussing functional obsolescence in the context of improvements). External or economic obsolescence is the loss in value or usefulness to property caused by factors external to the property, such as increased costs of raw materials, labor or utility, reduced demand for the product, increased competition, governmental regulations, or similar factors. See Transcon. Gas Pipe Line, 111 N.J. at 541.

The municipality's expert found no basis for applying external or functional obsolescence when determining the value of the machinery and equipment at issue. Although he acknowledged BASF decided in mid-2003 to close the plant, he determined that decision was based on declining profit margins due primarily to the relatively higher cost of labor in New Jersey, as compared to other parts of the world. In addition, he opined that the decision was based in part on increased competition from the production of EPS beads in Asia. He opined that the demand for EPS beads and the availability of raw materials were stable, noting BASF decided to expand its production of EPS beads in Mexico at around the time it closed the plant at the subject property. Thus, he concluded, the machinery and equipment did not suffer from external or functional obsolescence and could be used elsewhere to produce EPS beads.

The record does not support the opinion of the municipality's expert that the machinery and equipment at the subject property did not suffer from functional obsolescence. While individual items of machinery and equipment may have retained their functionality, the

municipality's expert failed to consider the functional obsolescence of the integrated processing function of the machinery and equipment. The expert did not examine whether, as a whole, the value of the machinery and equipment should have been depreciated to reflect more efficient and cost-effective methods of producing EPS beads developed since the installation of the machinery and equipment at the subject property. For example, he did not determine whether new technology existed to produce EPS beads with less energy or fewer employees or with fewer pieces of machinery and equipment. This analysis is necessary to determine whether the value of the machinery and equipment as an integrated process warranted a reduction for functional obsolescence. The mere fact that the property owner continued to operate a facility is insufficient, standing alone, to support a conclusion that the property does not suffer from functional obsolescence. See WCI-Westinghouse, Inc. v. Twp. of Edison, 7 N.J. Tax 610, 620 (Tax 1985), aff'd, 9 N.J. Tax 86 (App. Div. 1986).

The record also does not support the opinion of the municipality's expert that the machinery and equipment at the subject property did not suffer from economic obsolescence. The record establishes that by mid-2003, shortly after the last valuation date, BASF decided to close the plant. The municipality's expert recognized some of the economic forces contributing to that decision, including labor costs and competition from EPS bead manufacturers in Asia. He concluded these factors had nothing to do with the value of the machinery and equipment.

Yet, the labor and international competition begs the question of what effect these forces in the EPS bead market have on the value of used machinery and equipment at a New Jersey EPS bead plant. If EPS bead production was not economically viable at the subject property by mid-2003 or shortly thereafter, determination of the value of the machinery and equipment at the plant necessarily would require consideration of how the market would view the economic

viability of purchasing those assets for use at a location where EPS production was economically viable. The cost of removing the machinery and equipment, the partial destruction or dismantling of the structures to which that machinery and equipment is attached, its transportation to an economically viable location, and its subsequent installation surely would be relevant to the true market value of the assets. Such cost might well reduce considerably the value of the machinery and equipment. The court finds the municipality's expert's failure to consider these factors to be fatal to his conclusion the machinery and equipment was not subject to functional and external obsolescence.

The court recognizes the decision to idle the plant and its eventual closing took place after the relevant valuation dates. However, the record contains no evidence suggesting the economic factors that resulted in the closing arose suddenly. The municipality's expert did not explore whether, and to what extent, those forces were at work on the relevant valuation dates. Evidence was presented at trial that BASF invested in new reactors and a cooling tower during the relevant tax years. This suggests confidence in the continuing economic viability of the plant. However, the municipality's expert did not explore whether BASF viewed that investment as merely an economically viable method of maximizing return from the plant in what the company expected would be its final years in operation. In light of what may have been a developing cloud of uncertainty about the economic viability of producing EPS beads at the subject property, a buyer might well have viewed the relatively new machinery and equipment installed by BASF as valuable only if removed, transported, and installed at a distant location. The cost of these factors would have had an effect on the true market value of the machinery and equipment on the relevant valuation dates.

No other expert offered a credible analysis of the appropriate amount of depreciation to be applied to the value of the machinery and equipment to account for functional and economic obsolescence. In the absence of credible expert testimony on this point, it is not possible for the court to reach a determination of the true market value of the machinery and equipment on the relevant valuation dates. In light of the court's conclusion that the machinery and equipment are real property for purposes of local property taxes pursuant to N.J.S.A. 54:4-1, the true market value of the machinery and equipment must be included in the assessments for the relevant tax years. There is, therefore, a failure on the part of the party challenging the assessments to prove by a preponderance of the evidence the correct assessments for the tax years at issue.

The court will direct the Tax Court Clerk to enter judgments dismissing the municipality's counterclaims for tax years 1997 and 1998 and the municipality's complaints for tax years 1999 and 2000.