T.C. Memo. 1999-265

UNITED STATES TAX COURT

VANALCO, INC., A DELAWARE S CORPORATION,
RICHARD L. SMITH, TAX MATTERS PERSON,
Petitioner v.
COMMISSIONER OF INTERNAL REVENUE, Respondent

Docket No. 5955-98. Filed August 6, 1999.

Richard L. Mull and Ronald L. Berenstain, for petitioner.

William A. McCarthy and Kenneth P. Dale, for respondent.

MEMORANDUM OPINION

PARR, Judge: Respondent issued two notices of final S corporation administrative adjustment (FSAA) to the tax matters person of Vanalco, Inc. (Vanalco), determining adjustments of $4,325,463 and $2,930,758 to the ordinary income of Vanalco for

1992 and 1993, respectively. After a concession,[1] the issues for decision are: (1) Whether Vanalco may deduct or must capitalize the costs of replacing the linings of its aluminum reduction cells. We hold these costs must be capitalized. (2) Whether Vanalco may deduct or must capitalize the costs of replacing substantial portions of the brick floors of its cell rooms with Fondag cement. We hold these costs must be capitalized. (3) Whether Vanalco may deduct or must capitalize the cost of replacing a portion of its ingot plant roof. We hold this cost may be deducted.

Background

This case was submitted fully stipulated under Rule 122.[2] The stipulation of facts and the attached exhibits are incorporated herein by this reference.

Vanalco is an S corporation whose principal office was located in Vancouver, Washington, at the time the petition was filed. Petitioner, Richard L. Smith, whose mailing address was Lexington, Massachusetts, at the time he filed the petition, is Vanalco's tax matters person.

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[1]The parties agree that $47,091 of the adjustment in the 1992 FSAA is not in dispute.

[2]Unless otherwise indicated, all section references are to the Internal Revenue Code in effect for the taxable years at issue, and all Rule references are to the Tax Court Rules of Practice and Procedure. All dollar amounts are rounded to the nearest dollar.

Vanalco is in the business of smelting aluminum. In 1987, Vanalco purchased its smelting facility from ALCOA, which had begun operations at this facility in 1940. The basic elements required to make aluminum are alumina, electrical energy, and carbon. The chemical process involved in the production of aluminum is electrolysis.

In the smelting process, large buckets carried by overhead cranes bring alumina to hoppers positioned on top of reduction cells (cells). The hoppers feed the alumina into the center of each cell where it is dissolved in a bath of a molten cryolite solution (bath). An anode, which is a cubical carbon block attached to a copper rod, is introduced into the cell, and electrical current is passed from the anode, through the alumina-cryolite solution, and into a cathode. Cathodes are carbon blocks that line the bottom of the cell. The electrical current flows out of the cathode through embedded steel collector bars, then through a riser and into the anode in the next cell. The electrical current reduces the alumina to aluminum and oxygen, and this process produces aluminum continuously. Every other day the molten metal is removed from the cells and transferred to a casting area called the ingot plant (the plant). In the plant, the molten metal may be either poured into molds directly and allowed to solidify or combined with other alloys and cast into pig or log shapes.

Vanalco uses 636 low current density (LCD) cells and 14 N-40 cells in its smelting operation. The LCD cells are oblong steel shells approximately 22 feet in length, 3 feet in height, and more than 6 feet in width that sit on steel cradles over which anodes hang from a large steel superstructure. The N-40 cells essentially are the same as the LCD cells, except that the N-40 cells are approximately 3 feet shorter. The interior of each shell is covered with a cell lining.

The 650 cells are in 10 "rooms", which are areas that each contain 65 cells. In the rooms, each cell is placed within 24 to 28 inches of another cell. Two rooms of cells are connected together in a "pot line" by bus bars, through which electricity flows. Thus, 130 cells make up each pot line, and the cells in each pot line share the same electrical current.

The cells are arranged in such a way that any cell can be bypassed when circumstances warrant. A cell is bypassed or "shunted" from the line by disconnecting the riser from the superstructure and redirecting the flow of electricity. On average, 8 or 10 cells are shunted out of line for replacement of their linings at any given time; however, Vanalco cannot operate its system on a sustained basis without substantial modifications to its electrical system unless a minimum of 112 cells are in operation.

The Cell Lining Replacement

The voltage of the cells is monitored to ensure that the cells are operating properly. When the voltage in a cell cannot be maintained at a certain level or within a specified range, it generally indicates that something is wrong with the cell lining. In this circumstance, if all other attempts to restore the proper operation of the cell fail, the cell will be bypassed and removed from service to have its lining replaced.

When a cell ceases to operate properly and a sample of the molten aluminum shows an iron content above a certain level, it is most likely that the cell lining has eroded to expose the steel collector bars or the shell. At this point, the lining is burned or eroded to the point where a substantial number of the cathode blocks are no longer recognizable. If the lining is not replaced in this circumstance, the cell eventually will rupture and molten metal will spill onto the floor.

The following materials make up the cell lining: Cathode blocks made of carbon,[3] steel collector bars, refractory brick made of silicate material, castable refractory, steel plate,

[3]Cathode blocks make up the bulk of the cell lining. For instance, each LCD cell requires 8 blocks that are 60 inches by 18 inches by 14 inches, 2 blocks that are 60 inches by 15 inches by 14 inches, 1 block that is 60 inches by 17 inches by 14 inches, 2 blocks that are 30 inches by 18 inches by 14 inches, and 2 blocks that are 30 inches by 17 inches by 14 inches.

insulation board, carbon sidewall blocks, carbon lining paste, and various nuts and bolts.

Once it is determined that the cell lining must be replaced, the cell is shunted from the pot line and the carbon anodes are removed. The cell is allowed to cool for 20 hours, and then water is added to further cool the cell and to soften the lining materials. The steel superstructure and the cell shields are removed next, and repairs, if required, are made to the superstructure. The cell lining crew (the crew)[4] then removes the cooled, solidified electrolyte and aluminum metal from the cell cavity, and the cell is dug with pot diggers to remove the remaining cell lining. Once the lining has been removed, the shell and shell cradle are taken to the shell repair area for any necessary repairs.

A repaired shell and shell cradle are put in the vacant place in the pot line, and the replacement lining is installed in layers. First, the bottom of each shell is lined with two layers of insulating block, and a layer of sheet metal is placed on top of the insulating block to form a vapor barrier. Next, two layers of heavy refractory fire brick are added on top of the metal vapor barrier, and the cathode blocks with embedded steel connector bars are placed in rows on top of the refractory fire

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[4]Vanalco employs between 22 and 26 workers on the crew.

brick. The crew then installs the carbon sidewall blocks around the sides of the shell to cover the area from the cathode blocks to the top of the shell. Finally, the crew rams paste around and between the cathode blocks to create a smooth, solid cell cavity.

After the lining is replaced, the collector bars are connected to a ring bus, the steel superstructure is reinstalled above the cell, new anodes are hung from the superstructure, and the cell shields are reinstalled over the shell. Finally, the cell is reconnected to the pot line; however, the relined shell is not operational until the replacement lining and cathode blocks have "baked" for 48 hours. The average time for a cell to be out of service for replacement of its lining is 15 days.

Unless otherwise noted, the 1992 and 1993 replacement costs (including labor and allocable overhead) for the cell components and the average useful life in years for each component are as follows:

Component	Cost	Average Life
Cell lining	[1]$17,933	3.0
Cell cradle	5,583	[2]26.4
Shell	10,084	[3]53.8
Carbon anode	1,184	[4]0.0
Anode assembly:		
Copper rods	2,240	5.0
Steel stubs	423	1.0
Bolts	249	4.1
Nuts	14	0.5
Cast iron	13	0.3
Cell shield	580	10.4
Anode clamp	197	5.3
Flexible strap	2,166	13.0

Ring bus	[5]11,000	59.0
Riser	[5]6,400	59.0
Ore bin	[5]3,000	[6]54.0
Superstructure	[5]35,100	[6]54.0
Alumina feeder	[5]3,500	[7]32.0
Total	$99,666	

[1] In addition to this cost for installing a replacement cell lining, Vanalco paid approximately $5,401 per failed cell to tear out the exhausted lining plus some miscellaneous costs.

[2] Substantial repairs have been made to the cell cradles since they were placed in service.

[3] The end sections of each shell have been in service for approximately 59 years and have been repaired. Many of the center sections have been replaced within the last 10 years.

[4] The carbon anodes have a useful life of 14 days. The expense of this component is not at issue.

[5] These components were not replaced during the years at issue. The dollar amounts reflect the 1998 replacement costs.

[6] Vanalco extended the length of the ore bins and the superstructures by approximately 3 feet. Except for the extensions, the ore bins and superstructures have been in service for approximately 54 years.

[7] Approximately 30 percent of the alumina feeder must be replaced every 3 or 4 years. The remaining portion has been in service for approximately 32 years.

Vanalco reported a repair expense of $4,411,245 for the cost of replacing the linings of 206 cells in 1992 and $4,224,991 for the cost of replacing the linings of 192 cells in 1993.

The Cell Room Floors

Vanalco has 10 cell rooms,[5] which are each approximately 722 feet in length and 47 feet in width. Each cell room is divided lengthwise into three sections--a center section with the cells, a section to one side called the "tap end", and a narrower

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[5]The cell rooms are numbered 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22.

section on the other side called the "duct end". The tap end of the cell room is an area where molten metal is tapped, excess bath and wasted anodes are placed after removal from the cells, and front-end loading machines operate. The tap ends vary in size from 7,000 to 8,500 square feet.

Originally, each cell room had a concrete subfloor strengthened with iron rebar overlaid with bricks. The brick layer acted as insulation to prevent electrocution by contact with the rebar in the subfloor. ALCOA used this type of floor for over 40 years and employed a full-time brick replacement crew to maintain the integrity of the brick insulation.

However, in part because of the introduction of mechanical equipment and in part because of direct contact with wasted anodes and with molten aluminum and bath, the brick layer became so worn that it was hazardous. In some places the brick layer was worn down to expose the concrete and rebar subfloor, which created a risk of electrocution. Furthermore, the surface of the floor was very irregular because of the replacement of many bricks over many years. As a result of the uneven surface, Vanalco reported 21 accidents due to falls in the first half of 1992.

Vanalco repaired the floor by replacing bricks and also tried patching areas with Portland cement. Portland cement did not prove to be a satisfactory substitute because it required 2 weeks to cure fully and it could not withstand heavy use.

Accordingly, Vanalco decided to replace sections of the brick layer with Fondag cement.[6] Fondag cement is more pliable than regular cement, and it sets much more quickly and is easier to use. Moreover, like brick, Fondag cement acts as an insulator.

In comparison to brick, however, Fondag cement is a much superior material for an insulating floor covering. For instance, Fondag cement floors are easier and quicker to repair than brick floors because as small areas of the Fondag cement floor wear down, the small areas can be made to match the level of the less worn unrepaired surrounding floor surface without having to replace a large area as is necessary with brick floors. In addition, the Fondag cement floor can be made more level than the brick floor, which improves safety and allows the use of labor-saving mechanical cleaning equipment. Most importantly, Fondag cement becomes electrically nonconductive in 24 hours compared to 7 or more days for brick.

Vanalco removed and replaced the bricks with Fondag cement

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[6]Fondag cement contains approximately 38 to 40 percent alumina, 37 to 39 percent calcium oxide, 15 to 18 percent ferrous oxide and ferric oxide, and 3 to 5 percent silicon dioxide.

on the following floor sections:

Year	Cell Room No.	Floor Section
1991	6	Tap end
1992	20	Tap end
	10, 12, 14, 18	Center
	16, 22	Tap end and center
1993	8, 10	Tap end
	14, 18	Tap end and center
1994	4	Tap end
	10, 20, 22	Center
	12	Tap end and center
1995	4, 6, 8, 10 12, 14, 16	Center

Thus, by 1995, the brick floors of all the tap end and center sections were removed and replaced with Fondag cement floors. Vanalco reported repair expenses of $386,327 and $408,154 for the cost of the replacements in 1992 and 1993, respectively.

The Ingot Plant Roof

Molten metal is tapped into large crucibles and transported by large forklift trucks from the cell rooms to the plant. In the plant, the molten metal is either poured directly into 900-pound ingot molds and allowed to solidify, or it is placed into furnaces where the metal is alloyed and then cast into either 30-pound ingots or cylindrical billets. Finally, the finished metal, whether in ingot or billet form, is prepared for shipment.

The plant is an independent structure that has a different type of roof than the adjoining buildings. Because of the potential of fire from a molten metal explosion, the plant's 122,567-square-foot roof must be made of fire-resistant material. The roof must also be without leaks as rain water hitting the molten aluminum could cause an explosion that would spray molten metal over the plant. Thus, a leak in the plant roof could result in damage to plant equipment and would present a significant safety hazard to plant employees.

During 1989 and 1990, Vanalco removed and replaced 1,414 square feet of roof decking and 26,954 square feet of roofing material. In 1991, Vanalco removed and replaced 23,171 square feet of roof decking and roofing material. In 1992, Vanalco removed and replaced 12,927 square feet of roof decking and roofing material. In 1994, Vanalco removed and replaced 15,145 square feet of roof decking and roofing material.[7] Thus, during the period 1989 through 1994, Vanalco removed and replaced 42,514 square feet of roof decking and 78,197 square feet of roofing material.

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[7] Thus, during 1989 and 1990, Vanalco replaced 1.15 percent of the roof decking and 21.99 percent of the roofing material. In 1991, Vanalco replaced 18.90 percent of the decking and roofing material; in 1992, it replaced 10.55 percent; and, in 1994, it replaced 12.36 percent.

The original plant roof had corrugated sheet metal roof-support decking. However, at the time Vanalco repaired the roof areas, the pattern of the original metal support decking was not available. Because of the unavailability of the original material, Vanalco used 2- by 6-inch tongue-and-groove fire resistant wood decking to replace the corrugated metal decking.

Vanalco reported a repair expense of $115,346 for the removal and replacement of the roof material and decking in 1992.

Discussion

Section 162 allows the deduction of "all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business". Section 1.162-4, Income Tax Regs., provides:

> The cost of incidental repairs which neither materially add to the value of the property nor appreciably prolong its life, but keep it in an ordinarily efficient operating condition, may be deducted as an expense * * *. Repairs in the nature of replacements, to the extent that they arrest deterioration and appreciably prolong the life of the property, shall * * * be capitalized * * *.

On the other hand, section 263(a) provides that no deduction shall be allowed for (1) "Any amount paid out for new buildings or for permanent improvements or betterments made to increase the value of any property or estate", or (2) "Any amount expended in restoring property or in making good the exhaustion thereof for which an allowance is or has been made." Sec. 263(a)(1) and (2).

Such an amount "is a capital expenditure that is taken into account through inclusion in inventory costs or a charge to capital accounts or basis". Sec. 1.263(a)-1(b), Income Tax Regs.

Within the scope of section 263(a)(1) are those amounts paid or incurred (1) to add to the value, or substantially prolong the useful life, of property owned by the taxpayer, or (2) to adapt property to a new or different use. See sec. 1.263(a)-1(b), Income Tax Regs. However, section 1.263(a)-1(b), Income Tax Regs., specifically recognizes that "Amounts paid or incurred for incidental repairs and maintenance of property are not capital expenditures * * *. See section 162 and § 1.162-4."

Thus an expense which is "incidental" is currently deductible and is not a capital expenditure. If the repair is an improvement or replacement, or if it increases the property's value or substantially prolongs its useful life, it is capital in nature and is not currently deductible. See Wolfsen Land & Cattle Co. v. Commissioner, 72 T.C. 1, 14 (1979).

An important factor in determining whether the appropriate tax treatment is immediate deduction or capitalization is the taxpayer's realization of benefits beyond the year in which the expenditure is incurred. See INDOPCO, Inc. v. Commissioner, 503 U.S. 79, 87 (1992); United States v. Wehrli, 400 F.2d 686, 689 (10th Cir. 1968). This is not an absolute rule, however, as the benefits of expenditures considered to be currently deductible often extend beyond the current year. See United States v. Wehrli, supra.

The distinction between repairs and capital improvements has also been characterized as follows:

> The test which normally is to be applied is that if the improvements were made to "put" the particular capital asset in efficient operating condition, then they are capital in nature. If, however, they were made merely to "keep" the asset in efficient operating condition, then they are repairs and are deductible. [Moss v. Commissioner, 831 F.2d 833, 835 (9th Cir. 1987) (quoting Estate of Walling v. Commissioner, 373 F.2d 190, 192-193 (3d Cir. 1967), revg. and remanding 45 T.C. 111 (1965)), revg. T.C. Memo. 1986-128.]

See also Illinois Merchants Trust Co. v. Commissioner, 4 B.T.A. 103, 106 (1926) ("In determining whether an expenditure is a capital one or is chargeable against operating income, it is necessary to bear in mind the purpose for which the expenditure was made.").

In Plainfield-Union Water Co. v. Commissioner, 39 T.C. 333, 338 (1962), the Court articulated a test (the Plainfield-Union test) for determining whether an expenditure is capital by comparing the value, use, life expectancy, strength, or capacity of the property after the expenditure with the status of the property before the condition necessitating the expenditure arose. See Norwest Corp. & Subs. v. Commissioner, 108 T.C. 265, 279-280 (1997).

Whether an expenditure may be deducted or must be capitalized is a question of fact. See INDOPCO, Inc. v. Commissioner, supra at 86; Norwest Corp. & Subs. v. Commissioner, supra at 280; Plainfield-Union Water Co. v. Commissioner, supra at 337-338. The Supreme Court has recognized that

> the "decisive distinctions" between current expenses and capital expenditures "are those of degree and not of kind," and that because each case "turns on its special facts" the cases sometimes appear difficult to harmonize. [INDOPCO, Inc. v. Commissioner, supra at 86; citations omitted.]

Thus, "Courts have adopted a practical case-by-case approach in applying the principles of capitalization and deductibility." Norwest Corp. & Subs. v. Commissioner, supra at 280 (quoting Wolfsen Land & Cattle Co. v. Commissioner, supra at 14). Accordingly, we shall not attempt to harmonize the decided cases; "Rather, we shall discuss the facts as reflected in the record before us and arrive at a conclusion, recognizing that we shall be engaging in an exercise in line drawing". Badger Pipe Line Co. v. Commissioner, T.C. Memo. 1997-457.

Replacement of the Cell Linings

The parties agree on brief that the cell lining performs a function that is vital and integral to the smelting process. The cell lining acts as the cathode, and without the passage of electricity from the anode to the cathode, there would be no electrolytic production of aluminum. Furthermore, the cell will rupture and the molten metal will spill once the integrity of the lining is breached and the steel shell exposed, unless the cell unit is taken out of operation and the lining is replaced.

The parties have stipulated that (1) the cell linings have an average useful life of approximately 3 years, and (2) the cost of removing and replacing an exhausted lining is $23,334 plus some miscellaneous costs. Thus, the cell lining has a life that is independent of the cell unit as a whole, and the cost of the lining as a percentage of the total cost of the cell unit is substantial.[8] Moreover, the evidence submitted shows that the replacement cell lining material is a very substantial portion of the cell unit. Cf. Badger Pipe Line Co. v. Commissioner, supra (relocation of approximately 1,000 feet of a 25-mile 16-inch pipeline); Libby & Blouin, Ltd. v. Commissioner, 4 B.T.A. 910, 914 (1926) (replacement of many small parts to repair a large machine).

The parties agree on brief that the cell lining is not an asset separate from the cell unit. However, considering the facts and circumstances of this case, the difference between the cell lining as a separate asset and as a substantial and essential component is one of semantics, not substance. Cf.

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[8]The replacement cell lining is 22.21 percent of the cost of the rehabilitated cell unit (($17,933 + $5,401) ÷ ($99,666 + $5,401)).

LaSalle Trucking Co. v. Commissioner, T.C. Memo. 1963-274 (considerable evidence that trucking company's replacement components, i.e., truck engines, cabs, and fuel tanks, were independent capital assets). Whether the cell lining is a separate asset is not determinative of whether its replacement cost may be deducted or must be capitalized.

The cell unit comprises components with varying useful lives. However, the cell lining is an essential and substantial component without which the cell cannot function. According to normal experience, the cells operate for approximately 3 years before the lining is exhausted. Once the lining fails, the cell must be taken out of the pot line and cannot be put back in operation until the lining has been removed and replaced in an expensive, time-consuming procedure. Cf. Buffalo Union Furnace Co. v. Commissioner, 72 F.2d 399, 402 (2d Cir. 1934), revg. 23 B.T.A. 439 (1931). This inescapable cycle of exhaustion and restoration is repeated approximately every 3 years by every cell. Consequently, although some of the components of the cell may have useful lives longer than that of the cell lining, the productive phase of each cell's cycle ends upon the exhaustion of its lining. Cf. Ruane v. Commissioner, T.C. Memo. 1958-175.

In replacing the lining the cell essentially is rebuilt, thereby obtaining a new life expectancy of 3 years. See Electric Energy, Inc. v. United States, 13 Cl. Ct. 644, 667 (1987) (replacement of horizontal elements of a boiler prolonged its life and permitted commencement of a new 20-plus-year repair cycle); Ruane v. Commissioner, supra. In light of the facts of this case, we find that replacing the cell linings cannot be classified as an incidental repair, and the cost must therefore be capitalized. See Camilla Cotton Oil Co. v. Commissioner, 31 T.C. 560 (1958); Ruane v. Commissioner, supra; Electric Energy, Inc. v. United States, supra.

The Cell Room Floors

Between 1991 and 1995, Vanalco replaced the brick floors of the tap end and center sections of all its cell rooms with Fondag cement. In 1992, Vanalco replaced the brick floors of the tap end area of cell room 20, the center areas of cell rooms 10, 12, 14, and 18, and the tap end and center areas of cell rooms 16 and 22. In 1993, Vanalco replaced the brick floors of the tap end areas of cell rooms 8 and 10, and the tap end and center areas of cell rooms 14 and 18. The substantial nature of the replacements during the years at issue tends to prove that they were more than incidental repairs. See Stark v. Commissioner, T.C. Memo. 1999-1.

The parties have stipulated that the replaced areas of the floors were the areas that were subjected to the most mechanical equipment traffic and that the replacements were due, in part, to the introduction of the mechanical equipment. Repairs to the worn brick floors were unsatisfactory as the uneven floor surface produced a hazardous condition.

In comparison to the brick floors, the Fondag cement floors are easier to repair, become electrically nonconductive much more quickly, and provide a more level surface, which enhances safety and allows the use of mechanical cleaning equipment. It is clear that replacing the bricks with Fondag cement provided a substantial functional improvement. See Missouri Pac. RR. Co. v. United States, 204 Ct. Cl. 837, 854, 497 F.2d 1386, 1396 (1974); see also Southern Pac. Transp. Co. v. Commissioner, 75 T.C. 497, 718 (1980) (technical superiority of welded rail, when used to replace jointed rail, is functionally a betterment).

The evidence shows that the old brick floors were worn out, that patching was no longer practical, and that the introduction of mechanical equipment required the use of a more suitable floor material. The evidence also shows that the new floors were replacements and substantial improvements; therefore, the replacements were not merely repairs that kept the building in an ordinarily efficient, operating condition. See Phillips & Easton Supply Co. v. Commissioner, 20 T.C. 455, 460 (1953).

Finally, the new, improved floors made the property more valuable to Vanalco in its business, because the Fondag cement enabled Vanalco to effect faster repairs and to use mechanical cleaning devices, in addition to increasing the safety of its employees. See id.

On the facts of this case, we hold that Vanalco must capitalize the costs of replacing the brick floors of its cell rooms with Fondag cement.

The Plant Roof

The plant roof is 122,567 square feet. During the period 1989 through 1994, Vanalco removed and replaced 42,514 square feet of roof decking and 78,197 square feet of roofing material. In 1992, Vanalco removed and replaced 12,927 square feet of roof decking and roofing material.

Petitioner argues that the replacement of the portion of the roof in the year at issue was only to repair a leak and not part of a plan of rehabilitation. Respondent argues that the roof repair was more than patching a few leaks, and that when this repair is considered with the roof repairs performed in 1989 through 1994, it is evident that Vanalco had a plan to replace most of its roof over a period of years.

Expenses incurred as part of a general plan of rehabilitation, modernization, or improvement must be capitalized even though the same expenses if incurred separately would be deductible as ordinary and necessary. See United States v. Wehrli, 400 F.2d at 689; Norwest Corp. & Subs. v. Commissioner, 108 T.C. at 280. An asset need not be completely out of service or in total disrepair for the general plan of rehabilitation doctrine to apply. See Norwest Corp. & Subs. v. Commissioner, supra. Whether a plan exists and whether an item is part of it are usually questions of fact to be determined by a realistic appraisal of all the surrounding facts and circumstances, including the purpose, nature, extent, and value of the work done. See United States v. Wehrli, supra at 690.

At the time of the roof repair, the plant was in operating condition and had been for many years. See Keller St. Dev. Co. v. Commissioner, 37 T.C. 559, 568 (1961), affd. in part and revd. in part 323 F.2d 166 (9th Cir. 1963); Kaonis v. Commissioner, T.C. Memo. 1978-184, affd. without published opinion 639 F.2d 788 (9th Cir. 1981). Furthermore, although portions of the roof were repaired over a period of 5 years, no repairs were made during 1993. Therefore, the repairs during the year at issue were not part of a continuous process of roof rebuilding. Nor is there any evidence to support a finding that repairing the plant roof was done in preparation or as part of a remodeling project. Cf. Norwest Corp. & Subs. v. Commissioner, supra at 284-285. We agree with petitioner that the roof repair was not part of a general plan of rehabilitation.

However, a finding that the roof replacement was not part of a general plan of rehabilitation does not mean that the replacement was not an improvement to the plant the cost of which must be capitalized. In the year at issue, Vanalco removed and replaced approximately 10.6 percent of the plant roof. Vanalco not only replaced the roofing material, which provides protection from the rain, but also the decking that supports the roofing material. Therefore, the replacement included part of the roof structure.

There is no evidence that substitution of the 2- by 6-inch wood decking for the corrugated metal provided a functional improvement to the roof or materially added to the value of the property, within the meaning of the regulations. See Oberman Manufacturing Co. v. Commissioner, 47 T.C. 471, 482 (1967). Nor is there evidence to support a finding that replacement of a portion of the roof decking would appreciably prolong the life of the property. The facts do not support a finding that the purpose of the repair was to put the roof in operation; to the contrary, the facts show that Vanalco was performing ordinary maintenance to repair leaks as they appeared and to keep the roof in operating condition over its probable useful life. See id.; Hable v. Commissioner, T.C. Memo. 1984-485.

Accordingly, we find that the cost of repairing the plant roof is deductible as an ordinary and necessary expense under section 162(a). All other contentions in this case that have not been addressed are irrelevant, moot, or meritless.

To reflect the foregoing,

Decision will be entered under Rule 155.