

## **Query No. 9**

**Subject: Accounting treatment of expenditure incurred for rejuvenation of petrochemical plant.<sup>1</sup>**

### **A. Facts of the Case**

1. A Company (hereinafter referred to as ‘the Company’) is a central public sector undertaking under the administrative control of Department of Fertilizers, Government of India. The Company is engaged in manufacture and marketing of fertilizers and petrochemicals; engineering design & consultancy services; and fabrication & erection of equipments.

2. The Company had closed down one of its plants known as caprolactam plant in the year 2012 due to uneconomic realisation on sale of caprolactam. The plant related to the production of caprolactam had been in shutdown condition for the last 7 years. This plant used to contribute Rs. 400 to Rs. 500 crore to the top line of the Company.

3. The querist has informed that being a petrochemical plant which is hazardous in nature, its re-start requires substantial capital investment. The assets of the plant are already substantially depreciated and no reassessment of life or value were conducted in the year 2013 consequent to changes in the method of accounting notified as per Companies Act, 2013/accounting standards. Consequent to the commissioning of LNG terminal at Kochi in the year 2013 and subsequent softening of prices of LNG globally, the profitability perspective of caprolactam production has changed drastically. Under this juncture, the Company reviewed the financial viability of caprolactam operations and it was decided to rejuvenate the caprolactam plant to generate reasonable value addition/contribution on restart of caprolactam production.

4. Accordingly, the Company decided to proceed with the activities for rejuvenation of the caprolactam plant and restart of its operations. The rejuvenation process and consequent restart of operations involved substantial investment and expenditure, including replacement/purchase of major equipments like gas scrubbing tower, SO<sub>2</sub> line, KHI boiler internal & water wall, etc. and other expenditures like additional fuel, power and labour. The Company incurred a total expenditure of Rs. 18.24 crore during the financial year 2019-20, for the above. These additional investments provided an additional life to the plant for about 10 to 15 years. The Company has obtained opinion from its technical team on the remaining useful life of the plant, after the rejuvenation process. If the expenditure was not incurred, the plant would not have had any useful life and would have to be retired/scrapped.

5. The querist has provided the break-up of the expenditure incurred as follows:

- i. Machinery including spares : 2.55 crore
- ii. Fuel & Power : 13.73 crore
- iii. Labour : 1.96 crore

6. The Company is following cost model of accounting for its property, plant and equipment. The Company’s accounting policy on property, plant and equipment is as follows:

“All Property, Plant and Equipment are stated at acquisition cost less accumulated

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<sup>1</sup> Opinion finalised by the Committee on 23.5.2020.

depreciation / amortisation and cumulative impairment”.

7. The Company’s accounting policy on depreciation is as follows:
- i. Depreciation is charged on fixed assets based on the useful life of assets, prescribed under the Schedule II to the Companies Act, 2013. The Company has adopted straight line method of depreciation for all the categories of assets, acquired on or after 1st April, 2014.
  - ii. Effective from 1st April, 2014, the Company has reassessed the useful life of its existing fixed assets (considering component approach wherever necessary) and has charged depreciation over the remaining useful lives, after retaining residual value, in accordance with the transitional provisions contained in the Schedule II to the Companies Act, 2013.
  - iii. Residual value of 5% has been retained for all the Fixed Assets, which is in line with the provisions of the Schedule II.

8. The querist has stated that as per Indian Accounting Standard (Ind AS) 16, ‘Property Plant and Equipment’, the cost of an item of property, plant and equipment shall be recognised as an asset if it is probable that *future economic benefits* associated with the item will flow to the entity; and the cost of the item can be *measured reliably*. For the expenditure incurred for rejuvenation of caprolactam plant, the additional cost incurred has brought in future economic benefits and the cost can be measured reliably and therefore, the Company intends to capitalise the expenditure incurred for the modernisation of caprolactam plant. Incurrence of an expenditure of Rs. 18.24 crore, has resulted in conversion of a non-operative plant to the operating level, having a residual life of 10 to 15 years. Otherwise, according to the querist, the financial statements of the Company would not show a true and fair view of its operating results for the financial year 2019-20. (Emphasis supplied by the querist.)

9. The querist has provided following details regarding the nature and specific purpose(s) for which fuel and power expenditure (as mentioned above) is required to be incurred and the reasons/justifications for treating such expenditure as initial cost of the plant and capitalising this expenditure:

“The caprolactam plant of the Company has served its normal life and has been in shut down condition for the last six years. But it has not been written off/ scrapped in the books of account. Considering the present economic scenario, the Company has decided to rejuvenate / revive the plant by incurring additional expenditure including expenditure for fuel and power. By incurring these additional expenditure, the plant can be used for productive purpose for some more years. Trial run of various sub-systems of the Plant was done separately to ascertain the remaining fruitful life/ and its capability. These expenditures are onetime and the benefit of the same will be available throughout the useful life of the plant.

As explained above, unlike fertilizer plants, caprolactam is a petrochemical complex comprising of critical equipments handling highly hazardous and combustible chemicals (organic & inorganic) which have to be properly installed and tested to ensure safety in operation. The situation become more complicated when the plant is kept idle for more than six years. Restarting a complex Petrochemical plant after a long down time requires more care and additional precautions to ensure safety in operation.

Here the first priority of the Company was to ensure the technical viability and

safety of operation of the plant after a long down time. All the equipments in the complex were inspected and necessary renewals were done wherever required. Considering the complexity of the system, it was decided to do the trial runs in stages. All the equipments and instruments were tested and calibrated. For the test runs for ensuring safety & integrity of the plants, energy is needed by way of electricity and steam. Rotating equipments need electrical energy whereas equipment like distillation columns need steam energy in order to ensure all the required process & safety parameters during test run.

Being a critical petrochemical complex, the plant is designed to operate with captive power, for its safety and continuity. This captive power is generated through turbo generators, consuming regasified liquefied natural gas (RLNG). The Company has been conducting the process of such rejuvenating tests of various equipments during 2019-20 and accordingly power and fuel were consumed during this period. This test run is essential for ensuring the safety and integrity of the plants before planning the restart of the complex on a continuous scale.

In this connection, it may also be noted that even during the commissioning of a new petrochemical plant also, power and fuel consumption for such type of installation had to be incurred prior to capitalisation. This being a peculiar requirement in complex petrochemical plants, testing and ensuring the safety parameters is an unavoidable part of capital cost for setting up and commissioning. At this juncture, the querist has also invited attention of the Committee to paragraph 17 of Ind AS 16, Property, Plant and Equipment, wherein it is clearly specified that cost of testing to ensure proper functioning of the asset has to be a part of capital cost.

This expenditure is in the nature of expenditure incurred to have another lease of life of the equipment. The original equipment has served its major part of its economic life, there is a possibility of having another lease of life. Parallel could be drawn in power sector, where the life extension programme of power plant is prevailing, wherein a residual life study is conducted towards the end of normal economic life and based on the recommendation, additional capital expenditure is incurred by way of major repairs, renewals and replacement of major spares. The residual cost of the plant embedded with additional capital expenditure forms a new asset with revised life. Power regulator, Central Electricity Regulatory Commission (CERC) is also recognising this as capital expenditure with a revised normative life lesser than that of earlier one.

At times, a plant build-up for normative capacity, may be running at lower capacity owing to the market requirement. Sometimes, when market improves, the plants' capacity may be ramped up by incurring some cost. These types of ramp-up and rampdown are seasonal and expenditure incurred on ramp-up are treated as revenue. In the Company's caprolactam plant, the expenditure incurred may not be equated to such ramping up, which may be frequent, where as in caprolactam, it is not regular; only once in its life time.

The existing petrochemical plants are already in unserviceable condition. The renewals and other expenditure for rejuvenating the plant would provide an additional life of 10 to 15 years. According to the querist, considering the residual life of the original plant, the expenditure incurred by way of test run and associated capital expenditure have to be capitalised and need to be written off over the period of expected useful life of the plant.”

## B. Query

10. In the light of the above, the opinion of the Expert Advisory Committee has been sought on the following issues:

- i. How the expenditure incurred for modernisation of a closed plant so as to make it productive and to increase the expected life time to 10 to 15 years, can be accounted?
- ii. Whether the expenditure incurred on rejuvenation/modernisation of the caprolactam plant, as detailed above, can be capitalised or to be treated as revenue expenditure.
- iii. Whether the total amount incurred amounting to Rs. 18.24 crores can be written off over the remaining useful life of the asset as assessed by the technical team and in line with the accounting policy of the Company.

## C. Points considered by the Committee

11. The Committee notes that the basic issue raised in the query relates to the accounting treatment of the expenditure (comprising of machinery including spares, fuel & power and labour) incurred for modernisation/rejuvenation of a closed plant to make it productive and increase the expected life. The Committee has, therefore, considered only this issue and has not examined any other issue that may arise from the Facts of the Case, such as, accounting for any other expenditure incurred by the Company in relation to the plant, consideration of materiality, impairment of the closed plant, applicability of the requirements of Ind AS 105, 'Non-current Assets Held for Sale and Discontinued Operations' in respect of closed plant, etc. Further, the Committee presumes from the Facts of the Case that fuel and power cost is not in nature of raw material cost which would have resulted in production of finished goods. The Committee wishes to point out that the opinion expressed hereinafter is in the context of Indian Accounting Standards, notified under the Companies (Indian Accounting Standards) Rules, 2015 as amended from time to time.

12. In the context of the issue raised, the Committee notes the following requirements of Indian Accounting Standard (Ind AS) 16:

***“Property, plant and equipment are tangible items that:***

- (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and**
- (b) are expected to be used during more than one period.”**

**“7 The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:**

- (a) it is probable that future economic benefits associated with the item will flow to the entity; and**
- (b) the cost of the item can be measured reliably.**

8 Items such as spare parts, stand-by equipment and servicing equipment are recognised in accordance with this Ind AS when they meet the definition of property, plant and equipment. Otherwise, such items are classified as inventory.”

“10 An entity evaluates under this recognition principle all its property, plant and equipment costs at the time they are incurred. These costs include costs

incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. The cost of an item of property, plant and equipment may include costs incurred relating to leases of assets that are used to construct, add to, replace part of or service an item of property, plant and equipment, such as depreciation of right-of-use assets.”

- “12 Under the recognition principle in paragraph 7, an entity does not recognise in the carrying amount of an item of property, plant and equipment the costs of the day-to-day servicing of the item. Rather, these costs are recognised in profit or loss as incurred. Costs of day-to-day servicing are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is often described as for the ‘repairs and maintenance’ of the item of property, plant and equipment.
- 13 Parts of some items of property, plant and equipment may require replacement at regular intervals. For example, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe. Items of property, plant and equipment may also be acquired to make a less frequently recurring replacement, such as replacing the interior walls of a building, or to make a nonrecurring replacement. Under the recognition principle in paragraph 7, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions of this Standard (see paragraphs 67–72).
- 14 A condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognised in the carrying amount of the item of property, plant and equipment as a replacement if the recognition criteria are satisfied. Any remaining carrying amount of the cost of the previous inspection (as distinct from physical parts) is derecognised. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the item was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired or constructed.”

**“Elements of cost**

- 16 The cost of an item of property, plant and equipment comprises:
- (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
  - (b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
  - (c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity

incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

- 17 Examples of directly attributable costs are:
- (a) costs of employee benefits (as defined in Ind AS 19, *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant and equipment;
  - (b) costs of site preparation;
  - (c) initial delivery and handling costs;
  - (d) installation and assembly costs;
  - (e) costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and
  - (f) professional fees.”

#### **“Depreciation**

- 43 Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.”**

#### **“Depreciable amount and depreciation period**

- 50 The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.**
- 51 The residual value and the useful life of an asset shall be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with Ind AS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*.”**

- “57 The useful life of an asset is defined in terms of the asset’s expected utility to the entity. The asset management policy of the entity may involve the disposal of assets after a specified time or after consumption of a specified proportion of the future economic benefits embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets.”

#### **“Depreciation method**

- 60 The depreciation method used shall reflect the pattern in which the asset’s future economic benefits are expected to be consumed by the entity.**
- 61 The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with Ind AS 8.”**

## **“Derecognition**

**67 The carrying amount of an item of property, plant and equipment shall be derecognised:**

**(a) on disposal; or**

**(b) when no future economic benefits are expected from its use or disposal.**

**68 The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in profit or loss when the item is derecognised (unless Ind AS 116, *Leases*, requires otherwise on a sale and leaseback). Gains shall not be classified as revenue.”**

13. At the outset, the Committee notes from the facts provided by the querist that the Company was not required to perform regular major inspections for faults and consequently no costs for such major inspections/ testing was recognised in the carrying amount of the property, plant and equipment (PPE) and consequently, it is presumed that component accounting in respect of such major inspection cost was not necessary. The Committee does not opine in regard to whether in the Facts of the Case, component accounting is necessary or not.

14. The Committee notes from the Facts of the Case that the Company had closed down one of its plants known as caprolactam plant in the year 2012 due to uneconomic realisation on sale of caprolactam. Assets of the existing caprolactam plant are already substantially depreciated and if the expenditure was not incurred, the plant did not have any useful life and would have been retired/scrapped. The plant has been in shut down condition for the last six years, but was not written off/ scrapped in the books of account. From this, the Committee notes that no future economic benefits were expected to be available from the use of the plant without the incurring of the expenditure as stated by the querist.

In this context, the Committee notes from the above-reproduced requirements of Ind AS 16 that recognition principle as laid down in the Standard do not distinguish between costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. In both cases, any and all expenditure has to meet the recognition principle, and be expensed in profit or loss if it does not.

The Committee further notes that Ind AS 16, however, distinguishes between servicing and major expenditure. Paragraph 12 of Ind AS 16 requires that expenditure on repairs and maintenance, including replacement costs of small parts and cost of day-to-day servicing of the items is charged to profit or loss as and when incurred. The Committee presumes from the facts of the case that the expenditure incurred by the Company does not include expenditure of the nature described in paragraph 12 of Ind AS 16.

The Committee further notes from paragraph 13 of Ind AS 16 that when the conditions of recognition as per paragraph 7 of Ind AS 16 are met, an entity recognises in the carrying amount of an item of property, plant and equipment, the cost of replacing part of such an item when that cost is incurred and the carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions of Ind AS 16.

Accordingly, in the extant case, all major subsequent expenditure incurred including the cost of replacing various assets of the caprolactam plant should be capitalised provided it

is probable that the future economic benefits will flow to the Company and the cost of the asset to the Company can be measured reliably. As mentioned by the querist, the assets of the caprolactam plant are already substantially depreciated. Therefore, the Committee believes that an entity will generally choose to incur additional expenditure on an asset when it expects that expenditure to generate net future economic benefits.

Further at the same time, the carrying amount of those assets that are replaced should be derecognised as per the derecognition provisions of Ind AS 16. However, if there are any expenditure on regular repairs and maintenance as afore-mentioned, the same should not be capitalised. Further, from the above-reproduced paragraphs 16 and 17 of Ind AS 16 dealing with the items of costs that can be capitalised as part of an item of PPE, the Committee is of the view that in the extant case, while rejuvenation/ modernisation of the plant, only those costs that are directly attributable to bringing the various asset(s)/plant to the location and condition necessary for it/them to be capable of operating in the manner intended by management should only be capitalised as part of the cost of asset(s)/plant, such as, cost of site preparation, installation, trial/test runs, etc. Thus, as far as the costs relating to labour and power and fuel are concerned in the extant case, same can be capitalised only if these are directly attributable to bringing the various asset(s)/plant to the location and condition necessary for it/them to be capable of operating in the manner intended by management. In this context, the Committee notes from the Facts of the Case that the fuel and power was consumed for both trial/test runs of new equipments as well for ascertaining the serviceability of existing sub-systems of the plant. The Committee is of the view that any fuel and power consumed for ascertaining the serviceability of existing plant and equipment or costs incurred to arrive at a decision whether to modernise/rejuvenate the caprolactam plant should not be capitalised as this expenditure is not required for bringing the plant to an operating condition.

15. Further, the amount added or capitalised to the plant should be depreciated over the useful life of the asset/plant in accordance with the principles enunciated in above-reproduced paragraphs 43, 50, 51, 60 and 61 of Ind AS 16. In this context, the Committee also notes that considering the background of shutting down the plant due to uneconomic price realisation, this factor should be considered while determining the useful life of the petrochemical plant.

#### **D. Opinion**

16. On the basis of the above and subject to paragraphs 11 and 13 above, the Committee is of the following opinion on the issues raised in paragraph 10 above:

- i. and ii. As discussed in paragraph 14 above, all major subsequent expenditure incurred including cost of replacing various assets of the caprolactam plant should be capitalised provided it is probable that the future economic benefits will flow to the Company and the cost of the asset to the Company can be measured reliably, as per the requirements of paragraph 7 of Ind AS 16. Further at the same time, the carrying amount of those assets that are replaced should be derecognised as per the derecognition provisions (paragraphs 67 and 68) of Ind AS 16. However, if there are any expenditure on regular repairs and maintenance as afore-mentioned, the same should not be capitalised. Further, as far as the costs relating to labour and power and fuel are concerned in the extant case, same can be capitalised only if these are directly attributable to bringing the various asset(s)/plant to the location and condition necessary for it/them to be capable of operating in the manner

intended by management. Thus, any fuel and power consumed for checking the serviceability of existing plant and equipment should not be capitalised as this expenditure is not required for bringing the plant to an operating condition.

- iii. As discussed in paragraph 15 above, depreciation should be provided in accordance with the principles enunciated in paragraphs 43, 50, 51, 60 and 61 of Ind AS 16.

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