

Query No. 31

Subject: *Accounting treatment of expenditure incurred for configuration design study of integrated refinery cum petrochemical project.*¹

A. Facts of the Case

1. A company (hereinafter referred to as ‘the Company’), which is a joint venture of public sector oil marketing companies, is scouting for suitable land for setting up an integrated refinery cum petrochemicals complex. Meanwhile, as a part of project implementation, the Company has engaged various consultants for carrying out different studies including the pre-feasibility and configuration design study of the project.

2. The objective of configuration study carried out is to arrive at a most optimum configuration (essentially deciding the different products, quantities, process units and their capacities) of refinery and petrochemical process units while achieving best economics and meeting the domestic consumption of different products in future. The configuration thus finalised forms the basis on which further stages of Project implementation follow.

This base configuration, after carrying out a fine tuning, detailing and re-optimisation, the extent and scope of which depending on the time lapse and based on the significant changes, if any, on the product demands and cracks, will define the specifications for the selection of different licensors. The licensors thus selected will generate the design packages, which form the basis for Front End Engineering Design (FEED), Detailed Feasibility Report (DFR) and Detailed Engineering. The Plants will be constructed based on the detailed engineering, which will be commissioned with the assistance of licensors and operated thereafter.

Therefore, a configuration study is a starting point of the journey culminating with construction of refinery and petrochemical complex.

Further, the site of the refinery and petrochemicals complex is not a parameter for ascertaining the optimal configuration and the same configuration can be implemented on any land allotted for the project.

3. The querist has referred to the guidance under Indian Accounting Standard (Ind AS) and Educational Material, issued by the Institute of Chartered Accountants of the India (ICAI) as follows:

Paragraph 7 of Ind AS 16, ‘Property Plant and Equipment’ states the following:

“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”

Paragraph 16 of Ind AS 16 on ‘Elements of cost’ states the following:

“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.

¹ Opinion finalised by the Committee on 18.1.2021 to 20.1.2021.

- (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.”

Question No. 16 along with the Response as given in Educational Material on Ind AS 16, issued by the erstwhile Ind AS Implementation Committee of the ICAI is reproduced below:

“A public sector company is engaged in refining and marketing of petroleum products. The company has entered into engineering agreements with a foreign licensor for transfer of know-how for installation of petrochemical plant at one of its refineries. The know-how can be used only for the company’s own use and cannot be sold or transferred or leased to others. As per the agreement, the licensor will provide engineering and technical services in connection with the design of the plant. Whether the cost of technical know-how fee related to plant design incurred under the engineering agreement is to be capitalised as intangible asset or as a part of the relevant plant?

Response

In the given situation, to determine whether know-how should be capitalised as an intangible asset or as a part of relevant plant, judgement needs to be exercised as to which element is more significant, the property, plant or equipment element or intangible element. The entity should evaluate whether any intangible part is actually integral to the larger asset or whether it is really a separate asset in its own right. In the present case, the technical know-how is integral to the plant which is required for installation of the petrochemical plant. The know-how can be used only for the company’s own use and cannot be sold or transferred or leased to others.

Further paragraph 16 of Ind AS 16, *inter alia*, states that 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 should be included in the costs of an item of property, plant and equipment.

The cost of a self-constructed asset is also determined using the same principles as for an acquired asset.

Since know-how has been acquired for installation of the plant and considering it will be used for installation of this plant only, the cost of know-how should be capitalised as part of cost of relevant plant as directly attributable cost.”

4. Accounting treatment by the Company:

The configuration design study is fundamental for construction of integrated refinery cum petrochemical project and being used as a basis for preparation of feasibility report. The study analyses existing technologies and materials to determine the best fit for the project, i.e., the configuration study helps in deciding the specifications of the project. As explained in paragraph 2 above that configuration finalised forms the basis on which further stages of Project implementation follow. The cost incurred is specific to the complex the Company is planning to construct and not generic. Therefore, the cost is integral part of the project, which is required for setting up the refinery cum petrochemical project. Further, paragraph 16 of Ind AS 16, states that 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 should be included in the cost of an item of property, plant and equipment. Since, the study done will be used for setting up the project only, the consultancy expenditure incurred for

configuration design study has been capitalized under 'Capital Work in Progress' as part of directly attributable cost.

5. *Comptroller and Auditor General (CAG) Observation:*

As per paragraph 5 of Indian Accounting Standard (Ind AS) 38, 'Intangible Assets', the Standard applies to, among other things, expenditure on start-up, research and development activities. Research and development activities are directed to the development of knowledge. Therefore, although these activities may result in an asset with physical substance (eg a prototype), the physical element of the asset is secondary to its intangible component, ie, the knowledge embodied in it.

As per paragraph 56 of Ind AS 38, examples of research activities are: (a) activities aimed at obtaining new knowledge; (b) the search for, evaluation and final selection of, applications of research findings or other knowledge; (c) the search for alternatives for materials, devices, products, processes, systems or services; and (d) the formulation, design, evaluation and final selection of possible alternatives for new or improved materials, devices, products, processes, systems or services.

Since the scope of the work of the consultant relates to search for alternative configuration/system, the work comes under the scope of 'Research Activities' as described under sub-paragraphs (c) and (d) of paragraph 56 of Ind AS 38.

Further, as per paragraph 54 and paragraph 55 of Ind AS 38 respectively:

"No intangible asset arising from research (or from the research phase of an internal project) shall be recognised. Expenditure on research (or on the research phase of an internal project) shall be recognised as an expense when it is incurred."

"In the research phase of an internal project, an entity cannot demonstrate that an intangible asset exists that will generate probable future economic benefits. Therefore, this expenditure is recognised as an expense when it is incurred."

Thus, as per paragraph 54 of Ind AS 38, the payments made to the consultant relating to study of alternative configurations should be recognised as expenses.

6. *Views of the Company to CAG Observation:*

Definition of 'Research' and 'Development' under Ind AS 38 is as under:

"Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding."

"Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use."

(Emphasis supplied by the querist.)

The configuration design study does not satisfy the definition of research and development in Ind AS 38 based on the following:

- i. The study has not been done with an intention of gaining new scientific or technical knowledge and understanding. Existing methods available have been used to perform the configuration study. Also, the technologies considered by the consultant are tried and tested and commercially feasible technologies.
- ii. The configuration will define the specifications for the selection of different licensors, who will generate the design packages, which form the basis for FEED,

DFR and detailed engineering. The Plants will be constructed based on the detailed engineering thus effected, which will be commissioned with the assistance of licensors and operated thereafter. Therefore, configuration study will not create an identifiable intangible asset as the same cannot be separated from the entity and sold, transferred, licensed, rented or exchanged by itself.

- iii. It is the refinery and petrochemical complex which will be generating future economic benefits and not the configuration study by itself. Thus, study is not a precursor for creation of any intangible asset, as the results of the study are not intended for use elsewhere to generate economic benefits.

Accordingly, it may be inferred that the Company is not undertaking any research and development activity. The configuration finalised is fundamental to the construction of refinery and petrochemical complex; and forms the basis for further stages of project implementation. Therefore, the expenditure incurred for the configuration design study, being part of the overall construction of the project, should be treated as capital work in progress in accordance with Ind AS 16; and further since the expenditure is neither research nor development, it doesn't fall within the scope of Ind AS 38.

However, CAG desired that the Company should obtain views of the Expert Advisory Committee of the ICAI on accounting treatment of consultancy cost incurred on configuration design study.

B. Query

7. In view of the above, the querist has sought the opinion of the Expert Advisory Committee as to whether the accounting treatment done by the Company for expenditure incurred for the configuration design study by classifying it as Capital Work in Progress as per Ind AS 16 is correct.

C. Points considered by the Committee

8. The Committee notes that the basic issue raised by the querist relates to the accounting treatment of expenditure incurred by the Company for configuration design study under Ind AS. The Committee has, therefore, considered only this issue and has not examined any other issues that may arise from the Facts of the Case, such as, subsequent accounting under Ind AS 16 or Ind AS 38, including impairment of assets, the exact scope and nature of configuration design study carried out and any other incidental issues.

9. The Committee notes that Ind AS 16 states the following:

“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.”

Ind AS 38, paragraph 8 states as follows:

“Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.”

“Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.”

The Committee notes that the querist has stated that configuration design study for the refinery/ plant has not been carried out with an intention of gaining new scientific or technical knowledge and understanding and that existing methods available have been used to perform the configuration study. Further, the querist has also stated that the technologies considered by the consultant are tried and tested and commercially feasible technologies; and that the configuration study is intended to lay out the specifications for the selection of different licensors.

Considering this, the Committee is of the view that the configuration study does not appear to have been undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Further, the Committee notes that development under Ind AS 38 is an application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services. However, the configuration study in the extant case does not entail an application of research findings or other knowledge, as per the facts provided by the querist. Therefore, the cost of such configuration study should neither be treated as research nor as development cost under Ind AS 38.

As far as capitalisation of such costs with the refinery cum petrochemical plant is concerned, the Committee further notes that paragraph 16 of Ind AS 16 states that 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 should be included in the costs of an item of property, plant and equipment. Any costs that are not 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 is expensed in Statement of Profit and Loss as incurred.

The Committee is of the view that in case of self-constructed assets, directly attributable costs are generally such costs which are necessary to enable the construction activity, i.e. these costs are directly related to the construction activity and without the incurrence of which the asset cannot be brought to the location and condition necessary for it to be capable of operating in

the manner intended by management. Accordingly, the Committee is of the view that in the extant case, the costs of the configuration design study, which as per the querist, is required for setting up the refinery cum petrochemical project, can be capitalised as a part of cost of property, plant and equipment (refinery cum petrochemical plant) only if such study is directly attributable to bringing the plant to the location and condition necessary for it to be capable of operating in the manner intended by the management.

D. Opinion

10. On the basis of above, the Committee is of the opinion on the issues raised in paragraph 7 above that the cost of the configuration design study should neither be considered as research nor as development costs under Ind AS 38, as discussed in paragraph 9 above. Further, such cost can be capitalised as a part of property, plant and equipment (refinery cum petrochemical plant) only if such study is directly attributable to bringing the plant to the location and condition necessary for it to be capable of operating in the manner intended by the management, as discussed in paragraph 9 above.
