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| Project | Extractive Activities |
| Topic | Tentative agenda decision - Accounting for stripping costs in the production phase |

Objective of this paper

1. In June 2009 a request was received for guidance in respect of the accounting treatment of stripping costs during the production stage of the mine.
2. Following on from November IFRIC paper 2A *Preliminary discussion – Accounting for stripping costs in the production phase*, the purpose of this paper is to document the staff's analysis of the issue. As such, this paper:
 - (a) undertakes a technical analysis of the nature of stripping costs and explores alternative accounting treatments;
 - (b) provides a preliminary agenda criteria assessment;
 - (c) makes a staff recommendation on the tentative agenda decision and asks the IFRIC whether they agree with the staff recommendation.

Technical analysis

Nature of production stripping costs

3. Stripping costs are a type of mine development cost. Mine development costs are incurred to construct and commission mine facilities and to provide the necessary infrastructure to prepare the mine for commercial production.
4. Typically, mine development costs are capitalised as part of the 'mine asset' (or similar caption) according to paragraph 16(b) of IAS 16 *Property, Plant and Equipment* – costs directly attributable to bringing the asset to the point at which it is capable of operating in the manner management intended.

This paper has been prepared by the technical staff of the IASB. The views considered in this paper are for discussion at a public meeting of the IFRIC. No such views are to be presumed to be acceptable or unacceptable applications of IFRSs until the IFRIC or the IASB makes such a determination.

Decisions made by the IFRIC are reported in IFRIC *Update*.

Interpretations are published only after the IFRIC and the Board have each completed their full due process, including appropriate public consultation and formal voting procedures. The approval of an Interpretation by the Board is reported in IASB *Update*.

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5. Paragraph 17(b) of IAS 16 includes 'costs of site preparation' in the definition of directly attributable costs, referred to above.
6. Paragraph 20 of IAS 16 requires that capitalisation of development costs ceases when the item is in the location and condition necessary for its intended operation. In an ideal world, all development costs would be completed before a mine enters production.
7. In reality, however, it happens frequently that mine development activities, such as stripping (referred to as production stripping), will continue to be incurred once the mine has entered the production phase. Production stripping may benefit both current period production and future periods.
8. Where production stripping benefits future periods, it can be said that the nature of the cost is the same or similar to stripping costs incurred in the development phase (also known as pre-production stripping).

Approaches to accounting for production stripping costs

9. In practice, there are a number of approaches to accounting for production stripping costs, depending on the accounting framework being applied and the nature of the mining activity. Four typical approaches were introduced in paragraph 17 of paper 2A. A discussion of the pros and cons of each approach now follows.

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| Approach | Pros | Cons |
|--|---|---|
| <p>1. Expense production stripping costs when incurred</p> <p>Rationale: once a mine begins commercial production, all subsequent stripping costs are incurred to maintain current production, therefore provide little future benefit and do not meet the definition of an asset. Production stripping costs should be expensed as incurred.</p> | <p>Where the ratio of overburden to mineral ore mined does not vary significantly over the life of the mine, and the ore is relatively close to the surface, this approach may approximately reflect the operational results of the mine.</p> <p>It is the most simple method of the 4 and the least costly to implement - proponents of this approach argue that it is difficult to accurately allocate stripping costs between those that benefit current production vs. future production.</p> | <p>The approach would not be appropriate for mine operations where the ratio of overburden to mineral ore mined varies significantly over the life of the mine. In these circumstances, part of the production stripping costs is likely to be of a development nature. Therefore, a future benefit (asset) exists and can be identified, but it is not recognised.</p> |

| Approach | Pros | Cons |
|---|--|---|
| <p>2. Capitalise stripping costs as a cost of inventory, as variable production costs</p> <p>Rationale: once a mine begins commercial production, all subsequent costs to remove materials from the mine are costs of current production and represent a component of inventory cost. This approach is mandated for entities applying US GAAP, in the FASB – ASC Subtopic 930-330 <i>Extractive Activities—Mining—Inventory</i>¹.</p> | <p>The approach is consistent with the guidance in paragraph 12 of IAS 2 <i>Inventories</i>: the costs of conversion of inventories include costs directly related to the units of production, including a systematic allocation of production overheads (fixed and variable) incurred in converting materials into finished goods. Overburden removal could be viewed as either a direct cost, or as a production overhead.</p> <p>Aligning the accounting for production costs in the mining industry (by applying the principles in IAS 2) with other industries where inventories are produced and sold may have some merit.</p> | <p>This approach can lead to volatility in earnings where the ratio of overburden to mineral ore mined varies significantly over the life of the mine.</p> <p>In addition, the approach ignores any future benefit of the production stripping activity. There are sometimes operational reasons why significant stripping costs will be incurred in one period that provide access to parts of the deposit which will only be mined in the future.</p> |

¹ EITF 04-6 *Accounting for Stripping Costs Incurred during Production in the Mining Industry*

| Approach | Pros | Cons |
|---|--|---|
| <p>3. Capitalise stripping costs and attribute to reserves benefited in a systematic and rational manner</p> <p>Rationale: stripping costs are accounted for according to the benefit received by the entity. Stripping costs will be accounted for as current period inventory costs (similar to approach 2, above) if they benefit the current period. They should be capitalised if the stripping activity generates a future benefit for the entity. This approach is similar to that mandated by Canadian GAAP's EIC-160 <i>Stripping Costs Incurred in the Production Phase of a Mining Operation</i>.</p> | <p>Costs that do not relate to production in the current period are capitalised and allocated to production derived in future years, so operational results will be more reflective of current period activities. The approach is appropriate where the ratio of overburden to mineral ore mined varies significantly over the life of the mine.</p> <p>The approach is consistent with the Framework definition of an asset – a resource controlled by the entity as a result of past events, and which will generate future economic benefits for the entity.</p> <p>It is also consistent with the concept of component accounting in IAS 16 – the stripping costs are allocated to the quantity of mineral ore that becomes accessible (also known as the <i>specific identification approach</i>). The costs are then capitalised if the specific quantity of ore that they have been allocated to is only extracted in future periods.</p> | <p>Although the approach is considered technically sound, the information required to implement it is considered cumbersome and resource-intensive to maintain. Consequently, other than entities following Canadian GAAP, the approach is not that popular in practice.</p> <p>However, the staff were informed during an outreach session that most mining entities have available a vast amount of updated technical information about their mines</p> |

| Approach | Pros | Cons |
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| <p>4. Capitalise stripping costs using a strip ratio</p> <p>Rationale: this approach recognises that production stripping may benefit current and future periods. However, unlike approach 3, it capitalises production stripping costs by reference to higher than average stripping costs incurred in the current period. The application tool used for this approach is the strip ratio.</p> <p>The strip ratio is calculated as the <i>estimated total waste material in tonnes divided by estimated total proved and probable reserves</i>. This ratio will be calculated for the life of the mine, establishing the <i>average strip ratio</i>. The <i>actual strip ratio</i> is then calculated each period and compared to the average strip ratio. Any excess stripping costs (actual strip ratio > average strip ratio) are capitalised.</p> | <p>The strip ratio approach is widely used by entities reporting under IFRS - many mining entities consider that it provides more reliable and relevant information about their financial position and performance than the other approaches.</p> <p>In addition, from a practical standpoint it is an approach that can be efficiently applied in practice to complicated scenarios, where an entity has a number of mines in various stages of operation in a number of different global regions.</p> | <p>It is debatable whether higher-than-average production stripping costs in a period meet the definition of an asset, per the Framework. There are a number of reasons why the actual strip ratio could be greater than the mine average. For example, the ratio of overburden to mineral ore mined may naturally vary in different parts of the deposit, and removal of a thicker layer of overburden in a particular period does not necessarily mean a future benefit has been created.</p> <p>Use of the strip ratio approach in such a scenario appears to be more based on matching costs and revenues than on the creation of an asset.</p> <p>There is diversity in practice as to how the strip ratio is calculated, which may lead to reduced comparability between entities.</p> |

Amortisation

Units of production method

10. In the mining industry, many entities amortise capitalised development costs over the productive life of the mine, using the units of production method. The unit of account is the extracted ore, so amortisation of development costs is linked to the production level.
11. The calculation of the units of production rate of amortisation is based on *proved and probable* mineral reserves (proved and probable mineral reserves reflect estimated quantities of economically recoverable reserves, which can be recovered in the future from known mineral deposits).
12. In some cases, however (typically for entities following Canadian GAAP), the units of production amortisation rate for capitalised stripping costs will be calculated based on *a portion* of the total reserves, instead of *all* proven and probable reserves in a specific mine. In this way, the stripping costs are amortised in a rational and systematic manner over the reserves which directly benefit from the specific stripping activity. This variation of the units of production method does require more accounting effort.

Use of the strip ratio

13. Some entities make use of a proportional performance ratio, such as a strip ratio, to amortise the stripping costs in a rational and systematic manner. In this method, stripping costs that were previously capitalised when the actual strip ratio *exceeded* the average strip ratio, are now amortised when the actual strip ratio *falls below* the average strip ratio.

Agenda criteria assessment

14. The staff's preliminary assessment of the agenda criteria is as follows:

- a) *Is the issue widespread and practical?*

Production stripping costs are commonly incurred by mining entities worldwide, which undertake different variations of surface mining in order to extract a variety of minerals.

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- b) *Does the issue involve significantly divergent interpretations (either emerging or already existing in practice)?*

There is currently no guidance in IFRS for the treatment of production stripping costs. In addition, the guidance available in US GAAP and Canadian GAAP differs in principle. Consequently, there is much diversity in practice in how these costs are accounted for.

- c) *Would financial reporting be improved through elimination of the diversity?*

As a result of the lack of guidance in IFRS for the treatment of production stripping costs, entities reporting under IFRS have either adopted the US GAAP or Canadian GAAP approach, or have applied a hybrid approach. This lack of consistency of treatment reduces the comparability of financial statements and is confusing to users.

- d) *Is the issue sufficiently narrow in scope to be capable of interpretation within the confines of IFRSs and the Framework for the Preparation and Presentation of Financial Statements, but not so narrow that it is inefficient to apply the interpretation process?*

The scope of the issue is sufficiently narrow to benefit from interpretation.

- e) *If the issue relates to a current or planned IASB project, is there a pressing need for guidance sooner than would be expected from the IASB project? (The IFRIC will not add an item to its agenda if an IASB project is expected to resolve the issue in a shorter period than the IFRIC would require to complete its due process.)*

In August 2009, the Extractive Activities project team published a working draft of their discussion paper on the IASB's website. A request for views on the discussion paper will be released in the first quarter of 2010. After publication of the request for views, The Board must make a decision about adding the project to its active agenda. Following that decision, the project team estimates that an exposure draft would take at least 18 months to develop, and that a final IFRS would take at least another 12 months to develop.

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In light of the discussion in paragraphs a – d above, guidance on treatment of production stripping costs is needed in the interim.

15. Based on the assessment of the agenda criteria in paragraph 14, the staff recommend that the IFRIC take the issue onto the agenda.

Question for the IFRIC

1. Does the IFRIC agree that the issue should be added to the agenda?