STAFF PAPER

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IFRS Interpretations Committee Meeting

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Project	Items for continuing consideration
Paper topic	IAS 16 *Property, Plant and Equipment* and IAS 2 *Inventories* 'Core inventories'—Applicability of the concept to a range of industries

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Introduction

1. As mentioned in Agenda Paper 4, at its March 2014 meeting, the IFRS Interpretations Committee (the Interpretations Committee) requested the staff to analyse applicability of the 'minimum fill' concept (referred to as 'core inventories' by the submitter) to a range of industries.

2. In response to this request, Agenda Paper 4B deals with:

   (a) analysis of the generic fact patterns identified; and

   (b) consideration of possible consequences of the interpretation.

Generic examples identified

3. The following table:

   (a) summarises the description of generic fact patterns in different industries[1];

   (b) indicates accounting treatment and diversity in practice that have been noted[2]; and

   (c) describes the accounting treatment that is expected to be performed under the approach proposed in Agenda Paper 4A. The expected accounting treatment is based on generic fact patterns and could be different in an entity's specific circumstances.

4. The scope of what is considered to be minimum fill is defined in Agenda Paper 4A as a constant level of inventories for which the carrying amount is not expected to be recovered at the end of its useful life principally through its sale or consumption in the production process or in the rendering of services.

   We think that minimum fill should be accounted in accordance with the principles of IAS 16. The scope of the interpretation would exclude items for which the carrying amount is expected to be recovered at the end of their useful life principally through their sale or consumption.

5. The full description of the generic examples of minimum fill is presented in paragraphs 6 to 34 below.

[1] The list of examples identified is based on the outreach to the International Forum of Accounting Standard-Setters, securities regulators and global accounting firms. The description of that examples is based on the responses to the outreach, publicly available information and information received directly from preparers.

[2] The information is based on the responses to the outreach and on the examples of public financial statements observed.

Description	Materiality of the item	Identified diversity in practice	Noted accounting treatment	Expected accounting treatment under proposed approach[3]
Ex 1: Oil and gas industry—'base'('cushion') gas in storage facilities: a minimum volume of gas to be kept in the storage facility to maintain the adequate level of pressure				
– commingled with 'working' gas; – a certain level of base gas is necessary to make a storage facility operational (pressurise it) and should be kept at all times to maintain its operations; – its carrying amount cannot be recovered through sales or consumption in many cases because either the base gas cannot be physically extracted from the facility, or it is not cost-effective to extract it.	Material for most types of facilities	No	IAS 16	Base gas, for which the carrying amount is not expected to be sold or consumed at the end of the storage facility useful life, would be accounted for under IAS 16. Base gas, for which the carrying amount is expected to be sold or consumed at the end of the storage facility useful life, would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied).
Ex 2: Oil and gas industry–pipeline fill: the minimum volume of oil/gas to be kept in the pipeline to ensure its operability				
– continually replaced by ordinary oil or gas; – a certain level is necessary to make a pipeline operational (to pump the first batch) and is stable over the whole useful life of the pipeline; – its carrying amount can be recovered through sales (or consumption by the entity) both within the useful life of the pipeline and when the pipeline is finally decommissioned.	Could be material in some cases	Limited	IAS 16, limited cases where IAS 2 is applied.	The item would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied) because its carrying amount is expected to be recovered through sales (or consumption by the entity) at the end of the facility useful life.

[3] The expected accounting treatment under the proposed approach is based on generic fact patterns and could be different in an entity's specific circumstances.

Description	Materiality of the item	Identified diversity in practice	Noted accounting treatment	Expected accounting treatment under proposed approach[3]
Ex 3: Mining industry–non-current ore and metals in process: ore stockpiles, metals in process and ore on leach pads that are not planned to be processed within normal operating cycle				
– comingled with ordinary inventories; – the level is not stable over time; – its carrying amount can be recovered through sales (or consumption by the entity).	Material in precious metals industry	No	IAS 2, non-current assets	The items would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied) because their carrying amount is expected to be sold or consumed at the end of the facility's useful life.
Ex 4: Metal processing industry–permanent level of metal inventories which is held to run operations without interruptions				
– comingled with ordinary metal inventories; – the level is generally stable over time, changes are possible depending on business volumes and technology; – its carrying amount can be recovered through sales (or consumption by the entity) when the plant is decommissioned.	Material	Limited	IAS 2, limited cases in which IAS 16 is applied	The item would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied) because its carrying amount is expected to be sold (or consumed by the entity) at the end of the facility useful life.
Ex 5: Nuclear power plant–nuclear fuel (nuclear rods): a material that is burnt by nuclear fission to derive nuclear energy				
– not identical to other inventories; – a permanent level of the nuclear fuel is necessary to make the plant operational and to maintain subsequent operations; – regularly replaced (approximately every 1-3 years); – the carrying amount of the last load cannot be fully recovered through sale.	Not very material	No	IAS 2	The items that are expected to be used over more than one period would be accounted for under IAS 16 because their carrying amount is not expected to be sold (or consumed by the entity) at the end of the plant's useful life. The items that are expected to be used over one period or less would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied).

Description	Materiality of the item	Identified diversity in practice	Noted accounting treatment	Expected accounting treatment under proposed approach[3]
Ex 6: Chemical industry–catalysts: items that increase the rate of a chemical reaction, but are not consumed				
– not identical to ordinary inventories; – necessary to start the production process and to maintain subsequent operations; – regularly replaced (the regularity varies significantly); – the carrying amount of the last load cannot usually be fully recovered through consumption.	Not material in most cases	No	IAS 2 or IAS 16 depending on the consumption cycle.	The items that are expected to be used over more than one period would be accounted for under IAS 16 because their carrying amount is not expected to be sold (or consumed by the entity) at the end of the plant's useful life. The items that are expected to be used over one period or less would be excluded from the scope of the interpretation (generally IAS 2 is expected to be applied).

Example 1: Oil and gas industry–'base' ('cushion') gas in storage facilities

Description

6. In most cases gas storage facilities are used in cooler climates to ensure that any excess supply produced or delivered during the summer season is available to meet the increased demand of the winter season. The reverse can be the case in warmer climates when more energy is needed in summer months to fuel air conditioning equipment. Those storage facilities need a minimum level of gas to maintain the adequate level of pressure inside and ensure the deliverability level intended. This minimum amount of gas is usually referred to as 'base' gas or 'cushion' gas. The gas above this minimum amount is referred to as 'working' gas.

7. The main types of reservoirs are:

Type of reservoirs	Turnover rates[4]	Base gas volume	Possibility of extracting base gas
Depleted gas reservoirs: converted from a production field. Because the depleted reservoirs were previously filled with natural gas and hydrocarbons, they do not usually require the injection of base gas. Such reservoirs are the most widespread ones[5].	1 year	50 per cent of the reservoir volume	Possible (filling the reservoir with a saline liquid, eg sea water), but is not normally done because it is not cost-effective.
Aquifers: underground porous, permeable rock formations that act as natural water reservoirs.	1 year	50-80 per cent	Cannot generally be extracted, because it could have negative effects, including damage to the rock formation.

[4] Turnover rate is the average period between gas injection and withdrawal.

[5] Eg they comprised 82 per cent of all underground storage facilities in US in 2008.

Type of reservoirs	Turnover rates[4]	Base gas volume	Possibility of extracting base gas
Salt caverns: created by injecting high-pressure water into the salt layer. They are the most costly constructions and are usually smaller than other types, but are the most effective because they allow performing several withdrawal and injection cycles each year and leakage ratios are very low.	30-60 days	20-30 per cent[6]	The vast majority of gas can be extracted using specialised compression equipment.

8. The useful life of the storage facility varies within a range of 40-80 years in the examples we received feedback about.

9. Owners/operators of storage facilities are not necessarily the owners of the gas held in storage. Instead, most working gas held in storage facilities is held under leases with shippers, local distribution companies or end users who own the gas.

10. Base gas is physically commingled with working gas. Its quality does not deteriorate over time.

Materiality of the item

11. Base gas cost is usually approximately several million US dollars (approximately 13 per cent of the total cost of the facility development) in the examples we received feedback about.

12. The industry is currently developing and global gas storage capacity is expected to double by 2030. The amount of new investments required by 2030 is assessed at €120 billion[7]. The main countries currently developing storage facilities are the UK, Germany and Italy.

Noted accounting approach

13. On the basis of the examples we received feedback about, base gas is accounted for under IAS 16, using the rationale that it is inseparable from the facilities and is

[6] If the 'wet storage method' is applied (injecting water through one tube while withdrawing an equivalent volume of gas through another one), no base gas is required.

[7] http://www.cedigaz.org/products/underground-gas-storage/underground-gas-storage-executive-summary.aspx

necessary to operate them. This accounting treatment is applied even for base gas for which the carrying amount is fully recoverable through sale at the end of the life of the cavern/reservoir. We did not identify diversity in practice.

Example 2: Oil and gas industry–pipeline fill ('line pack')

Description

14. Pipeline fill is the minimum volume of oil or gas necessary to pump the first batch and to ensure pipeline operability. The minimum level is stable over the useful life of the pipeline and depends on such factors as the required pressure and the characteristics of the pipeline (eg its diameter), pumping stations and gas compressor stations.

15. The whole pipeline should be filled up before it can start delivering the products. A nitrogen blanket and separation pigs[8] are used in filling up the pipeline. The volume of minimum fill varies within the range of 0.5 to 4 per cent of the maximum annual pipeline capacity, based on the examples we received feedback about.

16. A pipeline can be emptied using pigs (or partially emptied using valves) and filled again, ie pipeline fill can be removed before the end of the pipeline's useful life. Its quality does not deteriorate over time as long as the pipeline is regularly cleaned (either by mechanical cleaning using pigs or by chemical cleaning).

17. The useful life of a pipeline varies within the range of 30 to 80 years.

Materiality of the item

18. The carrying amount of the item amounts to 0.5-5 per cent of the pipeline carrying amount or 0-3 per cent of the total assets, based on the examples we received feedback about.

[8] Pipeline pigs are devices that are inserted into a pipeline and travel throughout its length, driven by a flow of product.

Noted accounting approach

19. The predominant practice is accounting for the pipeline fill in accordance with IAS 16, using the rationale that it is physically unrecoverable until decommissioning. We are also aware of limited cases in which IAS 2 is applied.

Example 3: Mining industry–ore stockpiles, metals in process and ore on leach pads

Description

20. Mining entities often hold some ore stockpiles, metals in process and ore on leach pads over processing capacity, which they are not planning to process within one operating period. The balance of such inventories represents an excess of the material added to a stockpile (underground/metallurgical plants/leach pads) over the material removed and could change over the useful life of the production facility.

21. Such inventories are not technically required to operate a production facility; instead, they constitute a part of an entity's working capital. They can usually be removed from the production facility before the end of its useful life.

22. Such inventories are identical to ordinary inventories and are commingled with them.

Materiality of the item

23. The amount of items is not material in the non-precious metals industry (less than 1 per cent of the amount of total assets), but could be more significant in the precious metal industry (approximately 6 per cent of the amount of total assets) based on the feedback we received.

Noted accounting approach

24. Based on the examples we received feedback about, the items are accounted for under IAS 2 and presented as non-current inventories separately from ordinary inventories. We did not identify diversity in practice.

Example 4: Metal processing industry–permanent level of metal inventories in the refinery plant

Description

25. The permanent level of metal inventories is the minimum level of metal inventories that is required for the production process. The main characteristics of such inventories are:

    (a) they are necessary to run operations without interruption;

    (b) they are identical to ordinary inventories to be consumed in the production process;

    (c) their level is generally stable over time, but can change depending on business volumes and technology;

    (d) they can be removed only if production is temporary ceased; and

    (e) their quality does not deteriorate significantly over time.

Materiality of the item

26. The carrying amount of the item is expected to be material, based the examples we reviewed.[9]

Noted accounting approach

27. The permanent level of metal inventories is accounted for either under IAS 2 (but carried separately from ordinary inventories), based on the fact that they are identical to ordinary metal inventories, or under IAS 16 based on the fact that they are necessary to establish and ensure a production facility's functionality.

Example 5: Nuclear power plant–nuclear fuel (nuclear rods) in plant

Description

28. Nuclear fuel (nuclear rods) is a material that is burnt by nuclear fission to derive nuclear energy. It is usually consumed over a cycle of 1 to 3 years. The remains

[9] Eg a potential step-up in value of permanently tied-up metal inventories is equal to 79 per cent of the total inventories amount (26 per cent of total assets amount) in one of the examples we received feedback about.

are extracted and sent to reprocessing and/or long-term storage and eventual disposal of resulting waste products. The last load (unburnt fuel at shutdown) cannot be fully consumed or sold if the plant is permanently shut down.

Materiality of the item

29. The amount of the item in nuclear power plants is not very material, comprising 0.4 to 1.7 per cent of the total assets in the examples we received feedback about (0.7 to 2.5 per cent of the carrying amount of property, plant and equipment).

Noted accounting approach

30. Nuclear fuel is usually accounted for under IAS 2 and recognised as an expense while consumed (burnt) within its consumption cycle (1 to 3 years).

Example 6: Chemical industry–catalysts

Description

31. Catalysts are items that increase the rate of a chemical reaction, but are not consumed. In spite of the fact that they remain intact, they need to be regularly replaced. The regularity depends on the type of catalyst and the characteristics of the processes in which they are used and varies significantly from several months to several years.

32. Catalysts are used in various industries, eg methanol and ammonia production (water-gas shift reaction).

Materiality of the item

33. The amount of the item is not material in most of cases. In the examples we received feedback about, their carrying amount was either not disclosed separately, or comprised 1 per cent of the amount of total asset.

Noted accounting approach

34. Catalysts are accounted under either IAS 2 or IAS 16 depending on the length of their useful life.

Consideration of possible consequences of the interpretation

35. We expect that the proposed approach, as described in Agenda Paper 4A, would result in change in practice in the following cases:

Description of the item	Materiality of the item	Noted accounting treatment	Expected accounting treatment under the proposed approach[10]
Oil and gas industry—base gas the carrying amount of which is expected to be recovered principally through sales or consumption (Example 1)	Could be material	IAS 16 (predominant practice)	IAS 2
Oil and gas industry—pipeline fill (Example 2)	Could be material	IAS 16 (predominant practice)	IAS 2
Metal processing industry—permanent level of metal inventories (Example 4)	Material	IAS 16 (limited cases)	IAS 2

36. Taking into account that the interpretation could result in change in practice for several industries, we think that transition provisions will need to be considered in order to assist entities to change their accounting practice.

Question for the Interpretations Committee

Question for the Interpretations Committee
Does the Interpretations Committee have any questions or comments on the applicability of the definition of ‘minimum fill’ to a range of industries?

[10] The expected accounting treatment is based on generic fact patterns and could be different in an entity’s specific circumstances.