

COMMISSION

COMMISSION RECOMMENDATION

of 30 May 2001

on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies

(notified under document number C(2001) 1495)

(2001/453/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community and in particular Article 211 EC,

Having regard to the fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54(3)(g) of the Treaty on the annual accounts of certain types of companies⁽¹⁾, as last amended by Directive 1999/60/EC⁽²⁾,

Having regard to the seventh Council Directive 83/349/EEC of 13 June 1983 based on Article 54(3)(g) of the Treaty on consolidated accounts⁽³⁾, as last amended by Directive 90/605/EEC⁽⁴⁾,

Whereas:

- (1) In 1992 the Commission published its fifth action programme on the environment 'Towards sustainability' (COM(92)23)⁽⁵⁾. Among a range of proposals in the area of environmental protection, it provides for a Community initiative in the area of accounting. This initiative should relate primarily to the ways and means used by companies to report on financial aspects relating to the environment. An enhanced attention to financial aspects could contribute to achieving the goals of the programme; ensuring that environmental expenditures and risks are taken into account could increase the company's awareness of environmental issues. In 2001 the Commission has adopted a communication concerning the sixth action plan for the environment (COM(2001)31 final of 24 January 2001).
- (2) The Amsterdam Treaty recognised that a key element for promoting sustainable development (Article 6 of the EC Treaty) is the principle of the integration of environmental requirements into other policies. In view of this objective, the Cardiff European Council endorsed a strategy for the integration of environmental objectives

into all Community policies and actions. This strategy was confirmed and further developed by the Vienna European Council that invited the Internal Market Council to consider how such integration could be achieved in this particular domain.

- (3) In 1999 the Commission adopted a communication on the single market and the environment (COM(99)263 of 8 June 1999) which is intended to contribute to making environmental and single market policies mutually supportive and reinforcing, whilst at the same time developing synergies between them. This Communication identifies specific single market policy areas in which the Commission will strive for a closer integration with environmental policy, and lays down a series of further measures, among which to issue a recommendation on environmental issues in financial reporting. Such recommendation is also a direct follow-up of the November 1995 Accounting advisory forum paper on environmental issues in financial reporting (Document XV/6004/94).
- (4) The lack of explicit rules has contributed to a situation where different stakeholders, including regulatory authorities, investors, financial analysts and the public in general may consider the environmental information disclosed by companies to be either inadequate or unreliable. Investors need to know how companies deal with environmental issues. Regulatory authorities have an interest in monitoring the application of environmental regulations and the associated costs. Nonetheless, voluntary disclosure of environmental data in the annual accounts and annual reports of companies is still running at low levels, even though it is often perceived that enterprises face increasing environmental costs for pollution prevention and clean-up equipment and for waste clean-up and monitoring systems, in particular those enterprises operating in sectors that have significant impacts on the environment.

⁽¹⁾ OJ L 222, 14.8.1978, p. 11.

⁽²⁾ OJ L 162, 26.6.1999, p. 65.

⁽³⁾ OJ L 193, 18.7.1983, p. 1.

⁽⁴⁾ OJ L 317, 16.11.1990, p. 60.

⁽⁵⁾ OJ C 138, 17.5.1993. Programme as last revised by the European Parliament and the Council by Decision No 2179/98/EC of 24.9.1998 (OJ L 275, 10.10.1998).

- (5) In the absence of harmonised authoritative guidelines in relation to environmental issues and financial reporting, comparability between companies becomes difficult. When companies do disclose environmental information it is often the case that the value of the information is seriously handicapped by the absence of a common and recognised set of disclosures that includes the necessary definitions and concepts with regard to environmental issues. The information is often disclosed in a variety of non-harmonised ways among companies and/or reporting periods, rather than being presented in an integrated and consistent manner throughout the annual accounts and the annual report.
- (6) The costs of collecting and reporting environmental data and the sensitiveness or confidentiality that might be associated, in certain cases, with such information are frequently regarded as deterrent factors for disclosure of environmental information in the financial statements of companies. Nevertheless, these arguments do not eliminate the need to stimulate the provision of environmental information. Users of financial statements need information about the impact of environmental risks and liabilities on the financial position of the company, and about the company's attitude towards the environment and the enterprise's environmental performance to the extent that they may have consequences on the financial health of the company.
- (7) While the European legislative framework for financial reporting does not explicitly address environmental issues, the general principles and provisions laid down in the Fourth and Seventh Company Law Directives apply (Directives 78/660/EEC and 83/349/EEC, respectively).
- (8) As part of its 1995 accounting strategy ⁽¹⁾ the Commission seeks to integrate European harmonisation in the accounting field within the broader context of international accounting harmonisation. Consequently, the Commission has lent its support to the work of the International Accounting Standards Committee (IASC) which, in turn, set as its objective the development of a core set of high quality international accounting standards (IASs). The Commission is committed to work towards maintaining consistency between the European Union financial reporting, framework and international accounting standards developed by the IASC.
- (9) The IASC has published several international accounting standards that lay down provisions and accounting principles that are relevant when dealing with environmental issues. Nevertheless, there is little guidance directly related to such matters and no specific international accounting standard solely focused on environmental issues.
- (10) The recommendation has been prepared with a view to support policies linked to the single market and to contribute to ensuring that users of financial statements receive meaningful and comparable information with regard to environmental issues, thereby reinforcing the Community initiatives in the area of environmental protection. The Commission is of the opinion that there is a justified need to facilitate further harmonisation on what to disclose in the annual accounts and annual reports of enterprises in the European Union as far as environmental matters are concerned. The quantity, transparency and comparability of environmental data flowing through the annual accounts and annual reports of companies must also be increased. In order to achieve these objectives, and given the increasing importance attached to environmental issues in the European Union, the Commission aims at clarifying existing rules and providing more specific guidance on the subjects of recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies.
- (11) The recommendation recognises that there has been a gradual development of separate environmental reports, particularly by companies that operate in sectors with significant environmental impacts. It is not a purpose of this recommendation to identify the reasons underlying this trend. However, this recommendation recognises that different groups of stakeholders have different information needs or rank them differently. Separate environmental reports satisfy the information needs of stakeholder groups that are only partially met by the information provided in the annual accounts and annual reports of enterprises. Therefore, the aim should be to make separate environmental reports and the annual accounts and annual reports more consistent, cohesive and closely associated. The purpose of this recommendation is to promote this aim by ensuring that environmental disclosures are incorporated in the annual accounts and annual reports in a way that complements the more detailed and wide-ranging separate environmental reports.
- (12) Appropriate disclosures are considered a key factor that facilitates transparency of information. Disclosures are appropriate where they affect the user's understanding of the financial statements. This recommendation is not intended to establish unjustified burdensome obligations on the preparers of financial statements. The recommendation aims at providing comprehensive guidance in the area of disclosure, and identifies relevant disclosures that allow for comparability and consistency of the environmental information presented. This is particularly the case for the disclosure in the notes to the accounts of environmental expenditures either charged to the profit and loss account or capitalised, as well as the expenditures incurred as a result of fines and penalties for

⁽¹⁾ Accounting harmonisation: A new strategy vis-à-vis international harmonisation. Communication from the Commission (COM(95)508), 14 November 1995.

non-compliance with environmental regulations and compensations to third parties, paragraph 6 of section 4 of the Annex to this recommendation. The disclosure in the annual report of appropriate information with regard to environmental performance, where relevant to the financial performance or position of the enterprise or its development, is specifically addressed paragraph 2 of section 4 of the Annex to this recommendation.

- (13) For the recommendations on disclosures to be effective they need to be supplemented with workable definitions of the concepts covered. In order to meet this objective the recommendation includes a section on definitions.
- (14) The recommendation aims to present guidance on the application of the provisions of the fourth and seventh Directives (Directives 78/660/EEC and 83/349/EEC, respectively) with respect to environmental issues. Therefore, certain accounting treatments with regard to environmental issues are recommended in order to enhance the provision of more meaningful information by the preparers of the financial statements. While encouraging particular solutions, this approach is not aimed at eliminating the possibility of applying alternative treatments where permitted by the Directives. In the light of this, account is also taken of the Commission's 1997 interpretative communication concerning certain Articles of the fourth and seventh Directives on accounting ⁽¹⁾ and of the November 1995 Accounting advisory forum paper on environmental issues in financial reporting (Document XV/6004/94).
- (15) The recommendation takes as a source of reference several international accounting standards (IAS) that have been published by the International Accounting Standards Committee (IASC) which are of specific relevance to environmental issues, in particular IAS 36 on impairment of assets, IAS 37 on provisions, contingent liabilities and contingent assets and IAS 38 on intangible assets. The provisions contained in this recommendation are intended to be consistent with these International Accounting Standards, unless stated otherwise.
- (16) The recommendation is also influenced by a statement of position on Accounting and financial reporting for environmental costs and liabilities prepared by the

United Nations Working Group on International Standards of Accounting and Reporting ⁽²⁾.

- (17) As described in recitals 14 to 16 above, in response to the need to integrate environmental considerations into financial reporting, some guidelines have been developed at Community and international level. This recommendation builds upon such developments and at the same time seeks to provide a suitable Community framework for further improvements. The Commission believes that to meet the objectives of the recommendation, action by Member States is necessary. The Commission encourages and leaves scope to Member States for measures at national level. Moreover, discussions on ways to improve the present situation are likely to continue at international level,

HEREBY RECOMMENDS:

That the Member States:

1. Ensure that for accounting periods commencing within 12 months from the date of adoption of this recommendation and for all future accounting periods, companies covered by the fourth and seventh Company Law Directives (Directives 78/660/EEC and 83/349/EEC respectively) apply the provisions contained in the Annex to this recommendation in the preparation of the annual and consolidated accounts and the annual report and consolidated annual report.
2. Take the appropriate measures to promote the application of this recommendation.
3. Notify the Commission of the measures taken.

Done at Brussels, 30 May 2001.

For the Commission
Frederik BOLKESTEIN
Member of the Commission

⁽¹⁾ OJ C 143, of 21.1.1998.

⁽²⁾ ISAR — Td/B/COM.2/ISAR/3, 12 March 1998.

ANNEX

1. SCOPE

1. The recommendation is limited to information provided in the annual and consolidated accounts and in the annual reports and consolidated annual reports of companies with regard to environmental issues. It does not deal with special purpose reporting, such as environmental reports, except where it is considered appropriate to relate annual accounts, annual reports and separate environmental reports with a view to making their information content consistent.
2. The recommendation covers requirements for recognition, measurement and disclosure of environmental expenditures, environmental liabilities and risks and related assets that arise from transactions and events that affect, or are likely to affect, the financial position and results of the reporting entity.
3. The recommendation also identifies the type of environmental information that is appropriate to be disclosed in the annual and consolidated accounts and/or the annual and consolidated annual report with regard to the company's attitude towards the environment and the enterprise's environmental performance, to the extent that they may have consequences on the financial position of the company. The recommendation applies to both individual accounts and consolidated accounts. In the case of consolidated accounts, disclosures should be related to the group. The requirements for recognition and measurement should be consistently applied to all consolidated entities.
4. The recommendation applies to all companies covered by the fourth and seventh Company Law Directives, having due regard to the exemptions that Member States are permitted to introduce for small and medium-sized companies in accordance with Articles 11 and 27 of the fourth Directive.
5. Although the specific accounting requirements for banks, other financial institutions and insurance companies are dealt with in separate directives⁽¹⁾, this recommendation also applies to banks, other financial institutions and insurance companies, as the financial implications of environmental issues are not different for these types of companies.

2. DEFINITIONS

1. For the purposes of this recommendation the term environment refers to the natural physical surroundings and includes air, water, land, flora, fauna and non-renewable resources such as fossil fuels and minerals.
2. Environmental expenditure includes the costs of steps taken by an undertaking or on its behalf by others to prevent, reduce or repair damage to the environment which results from its operating activities. These costs include, amongst others, the disposal and avoidance of waste, the protection of soil and of surface water and groundwater, the protection of clean air and climate, noise reduction, and the protection of biodiversity and landscape. Only additional identifiable costs that are primarily intended to prevent, reduce or repair damage to the environment should be included. Costs that may influence favourably the environment but whose primary purpose is to respond to other needs, for instance to increase profitability, health and safety at the workplace, safe use of the company's products or production efficiency, should be excluded. Where it is not possible to isolate separately the amount of the additional costs from other costs in which it may be integrated, it can be estimated in so far as the resulting amount fulfils the condition to be primarily intended to prevent, reduce or repair damage to the environment.
3. Costs incurred as a result of fines, or penalties for noncompliance with environmental regulation, and compensation to third parties as a result of loss or injury caused by past environmental pollution are excluded from this definition, as discussed in paragraph 6(f) of section 4 of this Annex. Whilst related to the impact of the company's operations on the environment, these costs do not prevent, reduce or repair damage to the environment.
4. Furthermore, the Statistical Office of the European Union (Eurostat) has produced a series of detailed definitions of expenditures by environmental domain, which are included in the implementation documents of the Council Regulation (EC, Euratom) No 58/97 of 20 December 1996 concerning structural business statistics⁽²⁾. These definitions, subject to regular updating, are the basis for statistical reporting requirements on environmental protection expenditures in the European Union. When using the general definition in paragraph 2, it is recommended that companies take into consideration these detailed definitions for making the disclosures for environmental expenditures stated in section 4 of this Annex to the extent that they are consistent with the recognition and measurement requirements stated in section 3.

⁽¹⁾ Council Directive of 8 December (86/635/EEC) on the annual accounts and consolidated accounts of banks and other financial institutions (OJ L 372, 31.12.1986, p. 1 to 17); Council Directive of 19 December 1991 (91/674/EEC) on the annual and consolidated accounts of insurance undertakings (OJ L 374, 31.12.1991, p. 7 to 31).

⁽²⁾ OJ L 14, 17.1.1997, p. 1. See also implementation document ENV/96/10c. The European Classification of Environmental Protection Activities (CEPA) distinguishes between the following environmental domains: waste management; protection of ambient air and climate; waste water management; protection of soil and groundwater; protection of biodiversity and landscape; other environmental protection activities.

3. RECOGNITION AND MEASUREMENT

Recognition of environmental liabilities

1. An environmental liability is recognised when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation of an environmental nature that arose from past events, and the amount at which the settlement will take place can be measured reliably. The nature of this obligation must be clearly defined and may be of two types:
 - legal or contractual: the enterprise has a legal or contractual obligation to prevent, reduce or repair environmental damage, or
 - constructive: a constructive obligation arises from the enterprise's own actions when the enterprise has committed itself to prevent, reduce or repair environmental damage and has no discretion to avoid such action because, on the basis of published statements of policy or intention or by an established pattern of past practice of the enterprise, the enterprise has indicated to third parties that it will accept the responsibility to prevent, reduce or repair environmental damage.
2. Past or current industry practice result in a constructive obligation for the enterprise only to the extent that management has no discretion to avoid action. It will only occur when the enterprise has accepted the responsibility to prevent, reduce or repair environmental damage by a published specific statement or by an established pattern of past practice.
3. Environmental damage which may be related to the enterprise or may have been caused by the enterprise but for which there is no legal, contractual or constructive obligation to rectify the damage's extent, does not qualify to be recognised as an environmental liability in the enterprise's annual accounts in accordance with paragraphs 1 and 2. This does not prejudice the application of the criteria set out in paragraph 5 for contingent environmental liabilities.
4. An environmental liability is recognised when a reliable estimate of the costs derived from the obligation can be made. If, at the date of the balance sheet, there is an obligation the nature of which is clearly defined and which is likely to give rise to an outflow of resources embodying economic benefits, but uncertain as to the amount or as to the date, then a provision should be recognised, provided that a reliable estimate can be made of the amount of the obligation. This treatment is in accordance with Articles 20(1) ⁽¹⁾ and 31(1)(bb) of the fourth Directive. Uncertainties as to the date or as to the amount relate, for example, to evolving clean-up technologies and the extent and nature of the clean up required. In the rare circumstances where a reliable estimate of the costs is not possible, the liability should not be recognised. It should be regarded as a contingent liability, as mentioned in paragraph 26.

Contingent environmental liabilities

5. A contingent liability should not be recognised in the balance sheet. If there is a possibility, which is less than probable, that the damage has to be rectified in the future but the obligation has yet to be confirmed by the occurrence of an uncertain event, a contingent liability should be disclosed in the notes to the annual accounts. If it is a remote possibility that the enterprise will have to incur an environmental expenditure or such expenditure will not be material, disclosure of such contingent liability is not required.

Offsetting of liabilities and expected recoveries

6. Where the enterprise expects that some or all of the expenditures related to an environmental liability will be reimbursed from another party, the reimbursement should be recognised only when it is virtually certain that it will be received if the enterprise settles the obligation.
7. An expected recovery from a third party should not be offset against the environmental liability. It should be separately shown as an asset in the balance sheet, at an amount that does not exceed the amount of the related provision. It can be offset against the environmental liability only when there is a legal right for such netting that the enterprise intends to use. When, on the basis of this provision, netting is appropriate, the full amount of the liability and the expected reimbursement should be disclosed in the notes.
8. Expected proceeds from the sale of related property should not be offset against an environmental liability or taken into account in measuring a provision, even if such expected disposal is closely linked to the event giving rise to the provision.
9. Normally the enterprise is liable for the whole environmental liability. If not, only the enterprise's portion would be recorded as an environmental liability.

⁽¹⁾ Where, in accordance with paragraph 20 of the Commission's 1998 interpretative communication concerning certain Articles of the fourth and seventh Council Directives on accounting, Member States have implemented the option contained in Article 20(2) of the fourth Directive, it is also applicable to environmental charges.

Recognition of environmental expenditure

10. Environmental expenditures should be recognised as an expense in the period in which they are incurred unless they meet the criteria to be recognised as an asset set out in paragraph 12.
11. Environmental expenditures that relate to damage that has occurred in a prior period do not qualify as prior period adjustments but should be expensed in the current period, i.e. the period in which they are recognised.

Capitalisation of environmental expenditure

12. Environmental expenditure may be capitalised if it has been incurred to prevent or reduce future damage or conserve resources, brings future economic benefits and satisfies the condition laid down in Article 15(2) of the fourth Directive.
13. Environmental expenditures incurred to prevent or reduce future damage or conserve resources can only qualify for recognition as an asset if, in accordance with Article 15(2) of the fourth Directive, they are intended for use on a continuing basis for the purpose of the undertaking's activities and if, in addition, one of the following criteria is met:
 - (a) the costs relate to anticipated economic benefits that are expected to flow to the enterprise and extend the life, increase the capacity or improve the safety or efficiency of other assets owned by the enterprise (in excess of their originally assessed standard of performance); or
 - (b) the costs reduce or prevent environmental contamination that is likely to occur as a result of future operations of the enterprise.
14. If the criteria for recognition as an asset laid down in paragraphs 12 and 13 have not been met, environmental expenditure should be charged to the profit and loss account as incurred. If they have been met, environmental expenditure should be capitalised and amortised to the profit and loss account over the current and appropriate future periods, i.e. systematically over their expected useful economic life.
15. Environmental expenditure should not be capitalised but charged to the profit and loss account if it does not give rise to future economic benefits. This situation occurs when environmental expenditure relates to past or current activities and to the restoration of the environment to its pre-contamination state (e.g. treatment of waste, clean-up costs relating to current operating activities, clean-up of damage incurred in prior periods, environmental administration costs or environmental audits).
16. Items such as plant and machinery may be acquired for environmental reasons, for example, technical installations for pollution control or pollution prevention in order to comply with environmental laws or regulations. If they meet the criteria for recognition as an asset laid down in paragraphs 12 and 13, they must be capitalised.
17. There are cases when no anticipated future economic benefits result from the environmental expenditure itself, but rather future benefits are received from another asset that is used in the enterprise's operations. When the environmental expenditure that is recognised as an asset is related to another existing asset, it should be included as an integral part of that asset, and should not be recognised separately.
18. There can be rights or items of a similar nature acquired in connection with the impact of the operations of the enterprise on the environment (for example patents, licences, pollution permits, and emission rights). If, in accordance with Articles 9(C)(1)(2)(a) and 10(C)(1)(2)(a) of the fourth Directive, they have been acquired for valuable consideration and, in addition, they meet the criteria for recognition as an asset laid down in paragraphs 12 and 13, they must be capitalised and amortised systematically over their expected useful economic lives. If not, they should be charged to the profit and loss account as incurred.

Asset impairment

19. Environmental developments or factors may cause an existing fixed asset to be impaired, for example in the case of site contamination. A value adjustment should be made if the amount recoverable from the use of the site has declined below its carrying amount. This situation should, in the context of Article 35(1)(c)(bb) of the fourth Directive, be regarded as permanent. The amount of this value adjustment should be charged to the profit and loss account. In accordance with Article 20(3) of the fourth Directive, provisions for liabilities and charges, as defined in paragraph 4, cannot be set against the values of assets.
20. Where in accordance with paragraph 17, environmental expenditure is recognised as an integral part of another asset, the combined asset should at each balance sheet date be tested for its recoverability and, where appropriate, written down to its recoverable amount.
21. If the carrying amount of an asset already takes account of a loss in economic benefits because of environmental reasons, the subsequent expenditure to restore the future economic benefits to its original standard of performance can be capitalised, to the extent that the resulting carrying amount does not exceed the recoverable amount of the asset.

Measurement of environmental liabilities

22. An environmental liability is recognised, when a reliable estimate of the expenditure to settle the obligation can be made.
23. The amount of the liability should be the best estimate of the expenditure required to settle the present obligation at the balance sheet date, based on the existing situation and taking into account future developments both technical and in legislation, in so far as their occurrence is probable to occur.
24. The amount should be an estimate of the full amount of the liability irrespective of the date on which the activity is ceased or the liability is due to be settled. A gradual build-up of the full amount of the liability over the period of the enterprise's operations is allowed under Article 20(1) of the fourth Directive.
25. In estimating the amount of an environmental liability, the following rules apply. If the liability being measured involves different possible outcomes, according to paragraph 23, the best estimate should be accounted for. In the extremely rare cases where it is not possible to determine the best estimate of the liability with sufficient reliability, that liability should be regarded as a contingent liability and, therefore, its existence should be disclosed in the notes to the annual accounts. In addition, disclosure should be given of the reasons why no reliable estimate should be made.
26. Furthermore, for measuring the amount of an environmental liability, the following should be taken into consideration:
 - incremental direct costs of the remedial effort,
 - cost of compensation and benefits for those employees who are expected to devote a significant amount of time directly to the restoration effort,
 - post-remedial monitoring requirements,
 - advances in technology, so long as it is probable that the governmental authority will approve the technology.

Provisions for site-restoration and dismantling costs

27. Expenditure relating to site restoration, removal of accumulated waste by-product, closure or removal of fixed assets, that the company is under obligation to incur, should be recognised in accordance with the criteria laid down in paragraphs 1 to 4. If these criteria are met, the obligation to incur the future expenditure must be accounted for as an environmental liability.
28. In accordance with paragraph 24, this environmental liability for site restoration, removal or closure should be recognised at the date that the company's operations start and consequently the obligation arises. The recognition of this liability should not be delayed until the activity is completed or the site is closed. Where this liability is recognised, the estimated expenditure is included as part of the cost of the related asset that has to be dismantled and removed. This capitalised expenditure is then depreciated as part of the depreciable amount of the related asset. Additional damage could be caused during operations; the company's obligation to restore it arises when this environmental damage occurs.
29. In accordance with International Accounting Standard 37, paragraph 14, in the case of site-restoration and dismantling costs of long-term operations, the accounting treatment laid down in paragraph 28 is the preferred approach. This accounting treatment is anyway allowed on the basis of Article 20(1) of the fourth Directive together with the gradual build-up of a provision for such costs which is the other option. The enterprise may recognise long-term decommissioning costs over the period relating to the operations. In each reporting period a portion of the costs is charged as an expense, with the resulting balance shown as a separate liability.

Discounting of long-term environmental liabilities

30. For environmental liabilities that will not be settled in the near future, measuring them at present value (i.e. discounting) is allowed, but not required ⁽¹⁾, if the obligation and the amount and timing of the payments are fixed or can be reliably determined. Measuring at current cost (i.e. non-discounting estimated cost) is also acceptable. However, where the effect of the time value of money is material, it is a more appropriate treatment to measure environmental liabilities at present value.
31. The method chosen should be disclosed in the notes. The expected cost to be incurred should be based on a site-specific plan for the clean-up and/or remedial treatment of the contamination. The amount and timing of the payments should be based on objective and verifiable information.
32. The undiscounted estimated cash flows should be the estimated amounts expected to be paid at the dates of settlement (including estimates of inflation) and should be computed using explicit assumptions derived from the clean-up and/or remedial plan, such that a knowledgeable party could review the computation and concur with the estimated cash flows.

⁽¹⁾ International accounting standard 37, paragraph 45, requires discounting where the effect of the time value of money is material.

33. If an enterprise uses discounting in the measurement of its environmental liabilities this should be applied on a consistent basis. Any asset, relating to the recovery of a portion or all of a liability that is measured on a discounted basis, should also be discounted. In addition, if liabilities are measured on a discounted basis, the recoverable amount of assets should also be measured on the basis of discounted cash flows.
34. Measuring at present value requires the determination of a discount rate and information about the factors that may affect the timing and the amount of the estimated cash flows required. Moreover, the amount of the liability should be reviewed each year and adjusted for any change in the assumptions.

4. DISCLOSURES

1. Environmental issues should be disclosed to the extent that they are material to the financial performance or the financial position of the reporting entity. Depending upon the item, disclosures should be included in the annual and consolidated annual report or in the notes to the annual and consolidated accounts. Paragraphs 2, 5 and 6 deal with the disclosure of items in the annual and consolidated annual report, or in the notes. Paragraphs 3 and 4 deal with the presentation of items on the face of the balance sheet.

Disclosure in the annual and consolidated annual report

2. On the basis of the provisions laid down in Article 46(1) and (2) of the fourth Directive and Article 36(1) and (2) of the seventh Directive on the contents of the annual and consolidated annual report of companies, where environmental issues are relevant to the financial performance and position of the undertaking or its development, the annual report should include a description of the respective issues and the undertaking's response thereto. This information must provide a fair review of the development of the undertaking's business and position to the extent that environmental issues can directly affect it. For this purpose, the following disclosures are recommended:
 - (a) the policy and programmes that have been adopted by the enterprise in respect of environmental protection measures, particularly in respect of pollution prevention. It is relevant for users of the annual report to be able to ascertain to what extent environmental protection is an integral part of the company's policies and activities. Where applicable, this may include reference to the adoption of an environmental protection system and required compliance with a given set of associated standards or certifications;
 - (b) the improvements that have been made in key areas of environmental protection. This information is particularly useful if, in an objective and transparent manner, it provides a record of the performance of the enterprise with respect to a given quantified objective (for example emissions over the past five years) and reasons as to why significant differences may have arisen;
 - (c) the extent to which environmental protection measures, owing to present legislation or resulting from change in future legal requirements that have been substantially enacted, have been implemented or are in process of implementation;
 - (d) where appropriate and relevant to the nature and size of the business operations of the company and to the types of environmental issues relevant to the enterprise, information on the environmental performance of the enterprise: such as energy use, materials use, water use, emissions, waste disposals;

This information could usefully be provided by means of quantitative eco-efficiency indicators and, where relevant, detailed by business segment. It is particularly relevant to provide quantitative data, in absolute terms, for emissions and consumption of energy, water and materials⁽¹⁾ for the reporting period together with comparative data for the previous reporting period. These figures should preferably be expressed in physical units rather than in monetary terms; moreover, for a better understanding of their relative significance and evolution, figures in monetary terms could be put in relation with items shown on the balance sheet or the profit and loss account;

- (e) if the company issues a separate environmental report that contains more detailed or additional quantitative or qualitative environmental information, a reference to this report. If the environmental report contains the information mentioned in (d), a summary description of the issue and an indication that further relevant information can be found in the environmental report could also be made. Information provided in a separate environmental report should be consistent with any related information in the annual report and annual accounts of the enterprise. If the environmental report has been subject to an external verification process, this should be stated in the annual report. It is relevant to inform users of the annual report as to whether or not the environmental report contains objective, externally verifiable data.

⁽¹⁾ The European Commission is one of the partners in the 'Eco-efficiency indicators and reporting' project being developed by the World Business Council of Sustainable Development. This project aims at developing standardised eco-efficiency indicators, of which the 'core indicators' are intended to be relevant to all enterprises.

The scope and boundaries of the reporting entity should preferably be the same in both the annual report and the separate environmental report. If not, they should be clearly stated in the environmental report so that it can be identified to what extent it corresponds to the entity reporting in the annual report. Furthermore, the reporting date and period of the separate environmental report should also preferably be the same as that of the annual report.

Disclosure in the balance sheet

3. Provisions should be shown in the balance sheet under the caption 'Other provisions'. In accordance with Article 4 of the fourth Directive, a more detailed subdivision of the items prescribed in Articles 9, 10 and 23 to 26 for the layout of the balance sheet and the profit and loss account is permitted provided that the layouts are complied with. Member States may require such subdivisions.
4. If material, it is more appropriate to show environmental liabilities separately on the face of the balance sheet. Otherwise, if material, they should be separately disclosed in the notes on the accounts, in accordance with Article 42 of the fourth Directive and Article 29(1) of the seventh Directive.

Disclosure in the notes to the annual and consolidated accounts

5. In conformity with the provisions of the fourth and seventh Directives, the following information should be disclosed in the notes:
 - (a) description of the valuation methods applied, and the methods applied in calculating the value adjustments, on environmental issues as part of the disclosure required by Article 43(1)(1) of the fourth Directive and Article 34(1) of the seventh Directive;
 - (b) extraordinary environmental expenditures charged to the profit and loss account, in accordance with Article 29 of the fourth Directive and Article 17 of the seventh Directive;
 - (c) disclosure and details of the caption 'Other provisions', if not disclosed on the face of the balance sheet, in line with paragraph 4;
 - (d) contingent environmental liabilities, in conformity with Article 43(1)(7) of the fourth Directive and Article 34(7) of the seventh Directive, including narrative information in sufficient detail, so that the nature of the contingency can be understood. If significant measurement uncertainties make it impossible to estimate the amount of an environmental liability, this fact together with the reasons therefor should be disclosed along with, where possible, the range of possible outcomes.
6. In addition to the requirements of the fourth and seventh Directives, the following disclosures should be provided in the notes:
 - (a) for each material environmental liability, a description of its nature and an indication of the timing and terms of settlement. An explanation of the damage and of the laws or regulations which require its remediation and the restoring or preventive steps being taken or proposed. Where the nature and conditions of the items are sufficiently similar this information could be disclosed in an aggregated manner. If the amount of costs is estimated based on a range of amounts, a description of how the estimate was arrived at, with an indication of any expected changes in the law or to existing technology that are reflected in the amounts provided for;
 - (b) where the present value method has been used and the effect of discounting is material, the undiscounted amount of the liability and the discount rate used should be disclosed;
 - (c) in the case of long-term site-restoration, decommissioning and dismantling costs, the accounting policy. Where the company uses a gradual build-up of a provision under paragraph 29 of section 3, the amount of the full provision that would be required to cover all such long-term costs. The provisions 6(d) and 6(e), with regard to disclosure of environmental expenditure charged to the profit and loss account and environmental expenditure capitalised, should also be taken into consideration;
 - (d) the amount of environmental expenditure charged to the profit and loss account and the basis on which such amounts are calculated. Where relevant, a subdivision of the items the enterprise has identified as environmental expenditure, in a manner that is appropriate to the nature and size of the business operations of the company and to the types of environmental issues relevant to the enterprise. To the extent that it is possible and relevant, a breakdown of the expenditure by environmental domain as referred to in paragraph 4 of section 2 is appropriate;
 - (e) to the extent that it can be reliably estimated, the amount of environmental expenditure capitalised during the reporting period. If applicable, it should also be disclosed what part of the amount concerned relates to expenditure aimed at removing pollutants after their creation, and what part represents the additional expenditure to adapt the installation or the production process in order to generate less pollution (i.e. that relates to technologies or practices for pollution prevention). To the extent that is possible and relevant, a breakdown of capitalised expenditure by environmental domain as referred to in paragraph 4 of section 2 is appropriate;

- (f) where significant, costs incurred as a result of fines and penalties for non-compliance with environmental regulations, and compensations paid to third parties, for example as a result of loss or injury caused by past environmental pollution, should be disclosed separately, if not already separately disclosed as extraordinary items. Whilst related to the impact of the company's operation on the environment, these costs do not prevent, reduce or repair damage to the environment, therefore separate disclosure from environmental expenditures is appropriate;
 - (g) government incentives related to environmental protection received or entitled to by the company. The terms of each item concerned, or where similar a summary of the conditions. The accounting treatment adopted should also be disclosed.
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