

# APPROACHES OF ENVIRONMENTAL INFORMATION AUDIT IN ANNUAL REPORTS

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*ABSTRACT: Accountants and auditors have traditionally not been associated with the conservation or environmental movement. However, as providers of information, reports, and assurance on which business and government decision are frequently based, they have increasingly been drawn into the environmental arena. The influence of accountants and auditors comes from their access to financial and performance information. They analyze report and communicate information on which decisions are based and performance is evaluated. They can encourage greater transparency and informed decision about the application of resources and the impact of activities on environmental outcomes without distorting existing accounting standard. Thus, in order to ensure the provision of accurate information by annual reports, it is necessary to involve the environmental audit. In this article, we approached the carrying out of environmental audit, mainly underlining its necessity and importance.*

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## **1. What is environmental auditing?**

The concept of environmental audit occurred in the USA at the beginning of the '80 for evaluating ecological performances of some units in the oil field and chemical industry. So as to avoid the payments incurred by environmental pollution, buyers systematically proceeded to acquisitions from the units that implemented environmental protection policies. This practice has spread in major developed countries, having different meanings.

The Confederation of British Industry [Negrei, 1999] defines environmental audit as *the systematic exam of interactions between any economic and environmental operations. They include emissions is air, water, soil, effects on the neighboring areas, landscapes, public perception of the company's activities by the local community. The environmental audit does not analyze all legal provisions, performing a strategic approach of the entity's activity.*

The International Chamber of Commerce published in 1989 a definition which is unanimously accepted, i.e. *environmental audit is a way of management consisting of a systematic, documented, periodical and objective evaluation of performance, of the management system and the proceedings drafted for environmental protection aiming at facilitating the control of practices with a possible impact on the environment and evaluating the respect of environmental policies, including the achievement of environmental aims* [Meyronneinc, 1994].

Environmental audit may be largely defined as *a means of management which allows exhaustive, documented, periodical and objective evaluation of the way in which management and the equipments of an entity integrate the environment by facilitating the organization and control of the environment related practices* [Peuch-Lestrade, 2003]. This fundamental means of environmental management *aims at evaluating, comprising and controlling the impact of economic*

*activities on the environment* [London, 1995].

Accounting is interesting in finding a solution to the environmental issues. Thus, after more than 10 years, few audit company trained specialized teams in environmental audit. These teams include engineers (hydrologists, geologists, etc.), legal professionals, finance specialists, ISO 14001 certifiers, etc. [Peuch-Lestrade, 2003]. Moreover, an even greater number of organizations which provide checking services for environmental reports and accounting professionals of different organisms, such as the Association of Chartered Certified Accountants (ACCA), Canadian Institute of Certified Accountants (CICA), European Federation of Accountants and Institute of Certified Accountants (ICA) drafted guidelines for checking environmental reports and sustainable development. Ergo, the Federation of European Accounting Experts drafted the 1995 *Providing Assurance on Environmental Reports* [FEE, 1999] and INTOSAI (International Organization of Supreme Audit Institutions) created a work group for environmental audit that published *Guidance on Conducting Audits of Activities with an Environmental Perspective* in 2001. The work group conducted numerous studies and research related to this aspect and the results have been published on the INTOSAI website.

As any other audit, the environmental one consists in evaluating a system based on certain references, following:

- the evaluation of conformity of an entity's actions with the regulations and adopted policies;
- the comparison of these actions with the practices from the respective branch;
- knowledge of past and present emissions and localization of associated risks (health, environmental, legal, commercial, financial ones).

The way in which the control on environmental issues is applied is different from case to case, as following [IAPS, 1998]:

- entities with a low level of exposure to environmental risks or the smallest ones will monitor and control their environmental problems probably as part of their normal system of internal control;
- some entities that work in sectors with high environmental risks can draw up and apply a separate subsystem of internal control in this purpose, according to the existing standards for ISO 14000, EMAS;
- other entities draft and apply all controls in an integrated system, comprising policies and proceedings related to accounting, environmental and other aspects (for instance, quality, safety and security).

Environmental audit aims at ensuring a means of knowledge of the entity's situation, allowing its evaluation and effective control of environmental expenditure. The assessment of environmental costs is the bearer of a significant and necessary stake for achieving a high level of acknowledged credibility by environmental audit [Bach, 1995].

As a general rule, the following aspects pertaining to the environment must be taken into account in carrying out the audit of financial statements [IAPS, 1998]:

- impact of the audit results on financial statements;
- competence and aptitudes of the environmental audit team and the auditors' objectivity, especially when they have been elected within the entity;
- sphere of environmental audit, including the attitude of the board to the recommendations presented in the auditors' report;
- professional attention exerted by the team in carrying out the environmental audit;
- guidance, supervision, surveillance and corresponding review to the audit.

Moreover, not only environmental information presented in financial statements is subjected to audits, but also information presented in environmental or sustainable development reports. However, these reports are usually audited independently of the financial ones. Thus, in the studies conducted by KPMG with respect to the publishing of environmental information, it was found out

that most companies audit their financial statements independently of the environmental reports by an external organisms and the number of companies that audit environmental reports substantially increased. In the study conducted in 1999, KPMG showed that only 18% of the companies had their environmental reports audited, in 2002 - 29% of the Global companies 250 and 30% in 2005 (27% of the National ones 100 in 2002 and 33% in 2005) [KPMG, 2005].

## 2. Steps of environmental audit performance

The following steps are taken in carrying out an environmental audit:

### **I. Technical evaluation** includes:

- an *initial diagnosis* which involves the presentation of available information. This concise study gives an answer to the documentary conformity of the analyzed field. The studied fields will often be according to a suspensive clause when the necessary operational license is obtained and are not the object of any crime.

- the *intervention* which aims at the provision of information on areas with respect to the environment and regardless of all suspensive clauses or all the conformation data. This implies the drafting of a general mapping of the main environmental risks of the area.

For all the analyzed areas, the following elements are pursued:

#### **a. Documentary and regulatory research** which aims at:

- seeing the area and documentary research. A complete visit of the area for identifying the activities which may damage the environment must be carried out. A check is performed to see if there are not any documents imposed by regulations: license of operation; declaration of activity; other regulations (for instance, the use of dangerous products) and then the reports and documents from the local environmental facilities (environmental protection agencies), reports and documents from the organisms concerning work safety (labor inspections, labor medicine), correspondence with those facilities, etc.;

- *discussions with the responsible of the area* and with those responsible for safety and the environment.

#### **b. General mapping of the main environmental risks** of the visited area which involves:

- *visiting the area*. When the area is visited during the first module, there will be collected complementary information on: the use of the zone; the occupation of neighboring zones, information from the employees concerning the hygiene and safety rules; the existence of reserves, treatment or elimination proceedings for liquid or solid waste; the existence of retention basins or cremation facilities; accidental emissions that may pollute the soil, water, air; external communication policies (clients, providers, neighbors, etc.);

- *complementary documentary research*. Along the research conducted within the first module, the following can also be examined: various information on impact studies, waste shipping documents, environmental audit reports conducted in the past, examination of warranties and insurances concerning the damages caused to the parties, costs incurred by dealing with pollution effects and re-establishment of the area, prevention expenses, etc.

- *discussions with the administrative authority*. Complementary information on the concerned area situation with respect to hygiene, safety and environment may be obtained (the environmental protection agency may also be called);

- *historical research of the area*. Documents will be used for the historical rebuilding of the area: photographs from the air, cadastre research, topographical maps, etc.;

- *soil analysis*. If, further to the collected data, a soil analysis or other specific analyses are necessary, they may be carried out by other contracting companies. There is a double problem which needs solving: choosing the experts and controlling their activity, usually with the help of independent experts responsible with an overall diagnosis.

The technical evaluation is closed with a 1<sup>st</sup> level environmental audit report, possibly

completed by investigations carried out in the area of specialized entities. These studies allow the identification of existing pollutants for each area and the impact on the neighboring areas.

## **II. Financial evaluation**

Departing from the statistical data and according to the nature of identified problems, the potential financial aspect of the pollutants identified in the 1<sup>st</sup> level environmental audit report is identified; the total amount of the environmental liabilities for each area of the company divided in three risk levels is also assessed [Peuch-Lestrade, 2003]:

- *known risks*: definite costs concerning the pollution control activity;
- *probable risks*: complementary potential risks resulting from the uncertainty degree related to technical analyses;
- *calamitous risks*: potential risks in case of a calamity.

These elements are used in drafting the report and establishing guarantees which will be negotiated between the parties in terms of environment. The auditor takes into consideration the established levels of the inherent risk and of the control risk in determining the nature, duration and length of the proceedings required to reduce the non detection risk of significant distortions of financial statements at an acceptable level, including any of the significant distortions in case the entity does not succeed in adequately acknowledging, evaluating or presenting the effects on the environment.

During the audit process, for instance in collecting information on an entity's activity, in evaluating the inherent and control risk or in carrying out certain proceedings, some proofs may point to the existence of a risk that may significantly damage financial situations due to environmental problems such as [IAPS, 1998]:

- existence of reports that highlight significant environmental aspects, drafted by environmental experts, internal auditors or auditors in environmental issues;
- violation of environmental laws and regulations identified by regulation agencies;
- comments in the media on the entity with respect to major environmental issues;
- proofs that point to the purchase of goods and the provision of services related to environmental issues which are unusual in terms of the nature of the entity's activities;
- unusual fees paid to legal consultants dealing with environmental issues;
- payments or penalties as a result of the violation of environmental laws and regulations.

In these circumstances, the auditor takes into consideration the need to reestablish the inherent and control risk of the impact resulting from the non detection and, if necessary, the auditor may decide to consult an environmental expert.

For carrying out the environmental control, the following procedures are conducted:

- monitoring the environmental policies of the entity, such as the relevant environmental laws and regulations;
- maintaining an appropriate informational system concerning environmental issues which may include measurements, for instance, of the physical quantities of emissions and dangerous waste of the environmental features of the products, of the plaintiffs, of the results of inspections carried out by environmental agencies, of the incidents, etc.;
- providing a series of relevant financial data on environmental information such as the quantities of waste produced along with the costs of their disposal;
- identifying potential environmental issues that affect the entity [IAPS, 1998].

When they form an opinion on financial statements, the auditor analyses the effect on environmental issues and whether they are presented according to the identified framework of financial reporting. The environmental audit is not a certification in the usual sense of the term. However, there are certain rules used for a traditional audit: expedience of performance; number certification, comparison of an exercise to another. At the end of the action, the auditors draft a final report [Negrei, 1999] mentioning their fact findings, and sometimes the report may include a list of recommendations in view of reducing emissions: investment programmes, ways of reform

organization, communication plans, etc. These recommendations concisely presented, containing few details.

The carrying out of the environmental audit has the following advantages [Viardot, 1994]:

- Allows the highlighting of present or potential problems which need approaching;
- Reduces the risks of involvement of the entity in disputes, accidents or negative advertising resulting from prejudices on the environment;
- Contributes to the increase of the employees' consciousness towards environmental issues;
- Participates to the evaluation of training and informing programmes of the internal and external coworkers of the entity on pollution control issues;
- Allows the identification of the possibilities to reduce potential costs, such as the ones resulting from waste minimizing;
- Facilitates the change and comparison of information between different entities;
- Is the base for establishing the measures of ameliorating the ecological performances of the entity;
- Shows to the public opinion and the authorities that the entity is interested in protecting the environment.

In general, the environmental auditors' report respects the structure of the traditional accounting audit, mentioning the nature and the length of research, the used proceedings and finally the conclusions they reached, also mentioning whether their certification is reticently or non reticently granted or whether it is refused.

For instance, the **Report of the account commissioners concerning the environmental and social indicators of the French group Total** reads [Total, 2006]:

*On request, an examination of the perimeter of Total group was conducted to express an opinion on the environmental and social indicators chosen by the group for 2006.*

*These data have been prepared with the responsibility of the Directorate of Strategy and Risk Evaluation for environmental data and the Human Resources and Communication Directorate for the social data of the group according to:*

- *The Directive for reporting environmental performances and the Directive on greenhouse effect gas emissions;*
- *Protocol and Methodology of the social report of the group.*

*Based on the performed action, there is conclusion to this information.*

#### ***Nature and length of research***

- *Actions leading to a moderate assurance that the selected data are not significantly anomalous have been carried out. A high level assurance needs more detailed checking;*
- *The referential was appreciated with respect to its pertinence, reliability, clearance and exhaustiveness;*
- *There was a collaboration for applying the referential with the employees of the group according to types of activities (Exploration and Production, Gas and Electricity, Refining and Marketing, Chemistry);*
- *For the environmental data, detailed actions were carried out on 12 selected areas, standing for approximately 8% of the total area and between 23-52% of the consolidated data of the group and for the social data, 10 areas representing 12% of the group. For these areas and branches, the intelligibility and application of the referential was checked the coherence control and data processing with supporting documents was carried out;*
- *The calculi were tested by survey and the data consolidation at the level of activities and group was checked.*

#### ***Information concerning the proceedings***

*The information concerning the data establishment and reporting perimeter are provided by the group on pages 89-90 of the report. The reporting process is accompanied by the following*

comments:

*The environmental reports:*

- *The audited areas and sectors of activity determined reporting procedures concerning the main indicators. The presented data are reliable and were subjected to an important internal control action;*
- *The refining procedure may be often finalized by calculating the SO<sub>2</sub>, NO<sub>x</sub> emissions and the waste. The report concerning the Refining activity may be ameliorated;*
- *The distinction between the current exploitation waste and the dangerous exceptional waste was mentioned in the procedures of the group, but its application may be still harmonized. The classification of current dangerous waste for the activity of Exploitation and Production may be homogenized with that of the group;*
- *Despite the progress accomplished by the Marketing activity in taking into account the CO<sub>2</sub> emissions related to transportation, the distinction between direct and indirect emissions with respect to road transport may be ameliorated.*

*The social report*

*The proceeding concerning the presented information was completed, especially at the level of indicator definitions and data are presented for all branches.*

### **Conclusions**

*During the action, it was noticed that for the activity of Exploitation and Production, the composition of concerned burning gases was not representative with respect to the real composition of SO<sub>2</sub>, the corresponding correction being carried out. The variation of burning gases compounds will be documented for the activities of Refining, Exploitation and Production. Based on the carried out actions and under this reserve, there have not been identified significant disturbances meant to question the fact that the examined environmental and social data have been analyzed under all significant aspects according to the aforementioned regulations .*

The report was drafted by members of two audit companies: Ernest & Young and KPMG on 12 March 2007.

The environmental audit report of the French group Suez drafted by Ernest & Young and Deloitte (3 April 2007) for 2006 reads: *during the check out, disturbances were found with respect to the following data:*

- *Errors which have not been corrected have been identified with respect to the water consumption in several areas;*
- *At the extraction of soluble materials by means of solvents, errors were found in referential application.*

*Based on the activities carried out under these reserves, other disturbances have not been identified so as to point to the incomplete analysis of the concerned data from the point of view of all their significant aspects according to the regulations.*

### **3. Necessity of the environmental audit**

The need to consider, such as the measure in which all environmental aspects are taken into account in an audit of financial statements depend on the professional reasoning of the auditor, i.e. the auditor assesses whether the environmental aspects lead to a risk or significant disorders. In some cases, it may be considered that there is no need for specific audit procedures. However, in other cases, the auditor applies the professional reasoning to determine the nature, duration and length of the specific procedures which are considered as necessary for obtaining appropriate and sufficient audit proofs according to which financial statements do not contain significant disturbances. To evaluate the relevant factors in assessing the risks, the auditor will apply the professional reasoning so, if when drafting the audit plan the auditor considers that the

environmental risk is a significant component in evaluating the inherent risk, this assessment will be related to the account balances and the transaction classes by mentioning them [IAPS, 1998]:

- The extent to which an account balance is based on complex accounting assessments of environmental issues (for instance, evaluation of an environmental commission for rehabilitating a contaminated land). The inherent risk is bigger if there are no data for a reasonable assessment, i.e. due to the complex technologies for rebuilding the site and restoring the area;
- The extent to which an account balance is affected by unusual transactions which involve environmental aspects.

If the auditor does not have the professional competence to carry out these procedures when they require technical assistance from engineer specialists or other environmental experts [Bach, 1995].

An environmental audit is often carried out when a lease or assignment must be performed so as to identify the historical pollutions of the sites, to establish the environmental obligations and responsibilities, the quality of one or several environmental factors (air, water, soil, etc.) to obtain credits, to assess the insurance risk, etc. Usually, the specific analysis which precedes the acquisition of an entity consists of a financial, legal, fiscal and technical expertise and sometimes environmental aspects risk to be neglected. However, the environmental audit is a useful means for quantifying the environmental aspects from a financial point of view and for determining the purchase price as it [Hepting, 2007]:

- Identifies the environment related risks and evaluates the probable occurrence of these risks which can be covered by the guarantees established in the contracts of sale;
- Assesses the necessary expenses and investments for achieving the conformation;
- Gives information on the aspects which might compromise the continuity of certain activities of the entity or its overall activity.

In general, environmental risks are differently assessed according to the interests of those that carry them out. Thus, in the case of acquisition, the buyer tends to amplify and the owner to minimize the environment related risks. Ergo, a potential buyer would like to know the necessary expenses to respect the environmental regulations, such as: the investments which must be carried out for the emissions to observe the legal regulations (for instance, building a water treatment facility), the expenses related to present and future waste flows, to soil drainage, etc. [Engelen, 1998]. Moreover, along the financial aspects, the legal ones must also be taken into account with the possible sanctions respectively, such as fines and penalties (operation without a specific license for the environment involves the application of criminal sanctions) or seizures (lately, the courts established complementary criminal sanctions for seizing the financial advantages illicitly acquired by entities further to crimes on environmental protection). It is considered that entities may earn money because of these crimes and the earned amounts are updated during the period of the crime.

In case of assignment of a land of an industrial building, the experts which advise the buyer must ensure that he is informed with respect to the certification of installations used in the area; to encourage him to conduct an environmental audit for identifying the possible rebuilding costs or the potential pollution risks; to check the financial statement of the seller to see if he could manage the pollution control expenses in case of hidden risks. In exchange, the experts that advise the sellers must see to the limitation in time of the clause which guarantees the assets and liabilities after assigning the property (for instance, in case of pollution control of an area, the seller may propose an equally efficient and less expensive pollution control technique than the one established by the buyer) [Baghdassarian, 2002].

#### 4. Conclusion

To conclude, environmental audit is not only an instrument for evaluating environmental expenditure, but also an instrument for controlling the manner of record and presentation of information on the impact of economic activity on the environment as opposed to classic accounting audit as various information and not only financial one is analyzed. The main aim of environmental audit is to promote a good management of the environment, as well as to establish an active communication with the public. As a means of entity management, environmental audit completes the means of accounting profession and ensures the conformity of the presented information with the accounting regulations. In order to achieve these goals, the entity must conceive and apply internal controls so as to perform an efficient management, including environmental aspects. At present, there is no unanimously accepted technique; therefore auditors must invent measurement and assessment techniques, along with control techniques for these assessments.

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