

**INTERNATIONAL SYMPOSIUM ON MINE DRAINAGE
AND
ENVIRONMENT PROTECTION FROM WASTE WATER
DISPOSAL
KONKOLA COPPER MINE -
CHILILABOMBWE - ZAMBIA
SEPTEMBER 1993**



**HOW TO MINIMISE RISK EXPOSURES THROUGH AN
EFFECTIVE ENVIRONMENTAL RISK MANAGEMENT
PROGRAMME**

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1. INTRODUCTION

There are numerous risk exposures facing mines which arise from environmental impairment incidents. Some of these may be overlooked in situations where there is no strong, formalised auditing/risk control programme. To minimise a company's risk exposure it should integrate all facets of its Environmental Management System, with an all-encompassing Risk Management programme, and by doing so, the company will be in a better position to identify its risk exposures, both physical and financial.

2. THE RISK MANAGEMENT PROCESS (Slide 1)

Risk management may be defined as the management of fortuitous events in such a way as to minimise the cost, or potential cost of risk and losses to an entity, or to restore those costs.

The prime objective of this process is to provide an economic, physical, and in some cases intangible, pre-loss assurance that post-loss recovery will be satisfactory.

(Slide 2)

Although there are a number of theories on the risk management process, they generally all conform roughly to the following five steps"

(Slide 3)

- 1) Risk Identification.
- 2) Evaluation of Risk.
- 3) Selecting the right combination of methods of handling the risks, i.e. determining the mix of Risk Financing

(retention/self-funding and/or
transfer to insurance carrier) (Slide 4)
and, Risk Control (avoidance, control and prevention
of loss) (Slide 5)

- 4) Implementing the programme.
- 5) Continually monitoring and reviewing the programme.

In-depth information is freely available on risk management theory, specifics, processes, etc. from text books, manuals and professional journals. What follows therefore is not a comprehensive risk management workshop, but rather a focus on certain aspects that have largely been overlooked or ignored by personnel in this field and which deserve attention.

3. **IDENTIFICATION AND EVALUATION**

For years there have existed advanced fire planning models, intensive work studies for safe working procedures, etc. for use in identifying and evaluating specific perils. Experience in some industries has shown that many people in the risk control field, although they may assist in environmental work, have a rather limited knowledge of environmental matters, and therefore require a greater understanding of the following concepts:

Risk exposures to companies in general (Slide 6)

- property, personnel, liability and income.

Environmental hazards associated with these hazards

- chemical, physical, biological and mental (Slide 7)
(the last two are very often overlooked in many programmes).

Environmental impairment

- scope: release of harmful substances and energy.
(Slide 8) (Energy is most often associated with large scale nuclear accidents, but low level radiation, magnetism, microwaves and heat should also be included within this group), erosion, invasive exotic species of flora and fauna, unshielded waste disposal and various forms of contamination.
- paths: air, water, land, food chain, multi media.
(Slide 9)
- dimensions: resources, living things, pollutants,
(Slide 10) extent and duration of impairment, latency periods before damage manifestation.

extent: Macro (global, national, regional or local) and Micro (work environment).

Although a good insight into the above provides one with the ability to identify risks per se, it does not necessarily provide one with the ability to identify those risks in particular that do, or may have a bearing or impact, on the enterprise itself. What is therefore required is the breaking of the mould of accepted risk control thinking and extending the steps to include the identification or, at the very least, acknowledgement of business objectives and the strategies involved in fulfilling these objectives. Only by viewing business objectives holistically can one be in a position to determine what is really at risk and to what extent the response is based.

The prime objective of any business enterprise is or should be the maximisation of wealth. However, subservient objectives and strategies to achieve this prime objective do exist and these may include:

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- Maintaining the viability of the business enterprise.
- Safeguarding the market economy and free market system by demonstrating their compatibility with environmental and ecological constraints.
- Safeguarding the company's existence and well-being by recognising general trends at an early stage and planning accordingly.
- Seeking competitive advantage by minimising or eliminating environmental damage.
- Adopting a dynamic approach to ecological and environmental challenges in all areas of the company's activities and actively helping in the search for solutions.
- Encouraging co-operation between business and academia to hasten the progress of research and the advancement of knowledge in the environmental field.
- Developing an image of social responsibility for the firm.

Long-term strategies may also include:

- Capitalising on the goodwill resulting from environmental commitment.
- Taking advantage of reduced costs resulting from energy savings and economical use of resources.

- Reducing the risk of defective product liability and the costs of product recall.
- Co-operation with the media, government and trade unions.
- Setting environmentally sound procurement and purchasing standards for raw materials, ancillary inputs, consumables and for the suppliers of these goods and services.

With an awareness of objectives and strategies one is better able to identify those threats to the enterprise which, amongst others, may comprise:

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12)

- Loss of market share.
- Loss of new product opportunities.
- Increased insurance premiums.
- Loss of insurance cover.
- Loss of production.
- Loss of other facilities.
- Increased cost of working.
- Adverse publicity resulting in harm to image and reputation.
- Loss of customer, employee, creditor and investor confidence.
- Liability exposures following mergers and takeovers.
- Pollution exposures emanating from land and property acquisitions.
- Excessive workers compensation and personal accident claims.
- Criminal prosecutions.
- Civil claims for damages.

4. **THE SELECTION OF THE MOST SUITABLE RISK MANAGEMENT MIX**

If risk avoidance is not an acceptable alternative, then a programme to control and prevent losses becomes imperative. The extent of such measures will no doubt depend on the assessed relationship between the company's environmental and economic objectives, such assessment to include consideration of the environmental objectives on turnover, costs and profits; and the identification of the major conflict areas between these objectives such as increases in short-term costs, reduced turnover and cash flow problems.

From the risk financing point of view, retention and transfer are the two options. The high cost of insurance as well as compulsory deductibles leave companies with no choice but to practice some form of financial risk retention.

Now it is a basic precept of financial risk retention in general, and of captive or dedicated insurance companies in particular, that "long-tailed" risks such as environmental impairment, product and third party liability are **not** retained through self-funding arrangements. "Long-tailed" risks are those characterised as being difficult or impossible to quantify in terms of amount or duration. It is common practice for underwriters to insist that companies carry the initial portion of any loss by way of a deductible on each and every claim, and the "long tail" is therefore covered thereafter through upper levels of primary insurance, excess insurance and reinsurance.

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Unfortunately, insurance does not guarantee a "satisfactory post-loss recovery", and is certainly not the "quick fix" that many organisations assume it to be, as the indemnity it offers does not provide cover for all exposures faced by a company.

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It is worth noting that the environmental risk pool which operates from London's insurance market was closed to new business in 1983 because of excessive claims. Since that date, environmental impairment cover underwriters have appeared to curtail the indemnity offered, and, according to a 1990 insurance publication article, the world-wide capacity for this type of cover at that point was estimated at R25 billion, a mere fraction of the total capacity of the insurance market as a whole. As a result of this apparent scarcity of capacity, insurers have become more selective; cover, when it is available, is certain to be expensive, and is always combined with high deductibles.

Most underwriters and reinsurers require that an independent extensive site and risk survey be carried out, and the resulting recommendations be implemented to their satisfaction, before cover is granted. This means that some form of risk control and retention is obligatory.

With regard to risk financing, and for that matter risk control, it is always advisable to operate through an intermediary such as an insurance broker. Not only does a broker act on your behalf, as opposed to an agent who acts for the underwriter; but the broker is in a position to compile the best insurance package to suit your particular needs. The broker is also useful when the size of cover required warrants co-insurance and/or reinsurance arrangements. The larger insurance broking houses also provide risk control and risk management consultancy services for their clients and other interested parties, and have at their disposal the largest pool of risk management know-how in the countries in which they operate.

5. **PROGRAMME IMPLEMENTATION**

Once the desired mix has been decided upon, the risk management programme may be implemented. In carrying out this step, consideration has to be given to the positive and not unsubstantial returns arising from a risk management

programme.

(Infra)

The implementation phase involves a host of varied activities of which two will be covered in this paper; the development of a corporate environmental strategy because of its importance as a base, and an official sanction on which to develop all other environmental activities; and crisis management, with particular reference to public relations and communications aspects in crises as this is, judging from the handling of disasters in the past, an area that requires urgent attention.

* **Weighing the costs against the benefits**

The eminent Swiss psychoanalyst, Carl Gustav Jung stated that *"conflict creates the fires of affects and emotions and like every fire it has two aspects, that of burning and that of giving light"*.

A comprehensive risk management programme does require money to establish and to run, but at the same time can and does indicate areas of opportunities within its own sphere of influence as well as in other business activities, and this is the "light" that may provide the firm with some or other competitive advantage. Such opportunities may include:

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- Genuine product differentiation and diversification.
- Improved control of costs.
- Improved efficiency.
- Timely and cost effective expenditure on protection measures.
- Enhanced image and reputation.
- Increased public awareness of the group/company.
- Scientific and research developments.
- Tail-coating on competitors' developments.

From a marketing perspective, mines would do well to heed the words of the author of an article run some time ago in FORTUNE magazine which stated that a sound environmental record may no longer be the criteria for competitive advantage, but may well become a pre-requisite to entering or remaining in the market.

Whichever way you view the "Environmental Concern" phenomena, note has to be taken of its pervasive influence and businesses will be foolish to ignore its importance or its potential.

6. A CORPORATE ENVIRONMENTAL RISK MANAGEMENT PROGRAMME

The development of such a strategy should be broad enough to cover and include the following:

- A company philosophy or policy on environmental matters which is endorsed by the chief executive officer so that the commitment of management and other staff is forthcoming.
- The formation of structures to support such a strategy, for example, environmental mine planning, an environmental risk management team, emergency or disaster plans.
- Having access to specialist advice on call.
- Awareness and education programmes.
- Company standards and guidelines for environmentally responsible actions regarding all aspects of company operations.
- Support for environmental work in professional associations.
- Using the company's contacts, expertise and other resources to assist local citizens' initiatives.
- Financial support for environmental organisations, research projects, etc. This support should not be limited to large or prominent organisations or funds but should include those smaller causes that are just as deserving of aid and assistance.

Providing assistance or support in the formation of an environmental information and invention exchange system in which innovators are able to present ideas and inventions and discuss these with local and national government, trade associations and chambers of commerce, industrialists, scientists, academics and the media.

In this regard it is important that companies not be seen as protecting their markets against environmental innovations, but that they are seen to encourage such work, as in so doing can reap the benefits that derive therefrom.

7. CRISIS MANAGEMENT

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According to certain writers, a crisis can be defined as "an unexpected event that seriously threatens major corporate goals and presents a restricted time in which a response can be made a critical discontinuity in the environment".* (Slide 17) Such an unfavourable situation may appear suddenly but *not necessarily unexpectedly*.

S Fink, the American crisis management specialist, describes two classes of crises.** The first is the predictable or anticipated crisis such as a labour strike which can be either prevented or planned for. An unpredictable or unanticipated crisis, for example an accident or explosion, may not necessarily be preventable but can certainly be planned for.

According to Fink ** a crisis runs the risk that it can:

- Escalate in intensity.
- Bring the firm under close media and governmental scrutiny.
- Interfere with normal operations.
- Jeopardise the positive public image enjoyed by the company or its CEO.
- Damage a company's bottom line.

* - Smart, C & Vertinsky, I 1984
Strategy and the Environment: A Study of Corporate Responses to Crises
Strategic Management Journal Vol 5, no 3.

**-. Fink, S 1984
Coping with Crisis
Nation's Business, Vol 72

In his book entitled **CRISIS MANAGEMENT***, Fink distinguishes four stages in a crisis:

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First stage

- This is the warning stage where a number of indications are given (and often overlooked) that something is problematic.

Second stage

- At this, the acute crisis stage, some damage has already occurred but the situation is still controllable.

Third stage

- By this chronic crisis stage, Fink says "all hell has broken loose". There is media attention, lawsuits, government scrutiny and erosion of markets and customers. This stage can linger indefinitely".

Fourth stage

- The crisis resolution stage is a return to normal life - some companies never reach this stage.

In order to control and manage a crisis, a well organised and comprehensive crisis management plan which covers all four stages must be devised. An integral facet of a successful crisis management plan is the crisis communications plan.

8. **CRISIS COMMUNICATION**

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Fink envisages the events of a crisis falling into two categories: those over which the management of a firm is not in total control, i.e. the crisis itself, and those over which the management has the potential for far greater control, i.e. the communication of the facts regarding the crisis to the outside world. In this second category management has the ability to shape the public's initial and perhaps total perception of the situation. For this reason the public relations manager should be a member of every crisis management team as the effectiveness of the crisis management plan is negated if the right message cannot be communicated during a crisis.

* - Fink, S 1986 Crisis Management
Amacom, New York

Failure to communicate is a failure on the part of management and results may be disastrous for the firm. James Preston, the CEO of the AVON cosmetic giant, an American company which took a severe knock for not responding to market trends and changes in customer profile, said "*a bad reputation is like a hangover. It takes a while to get rid of and it makes everything else hurt*". So what's in a name? **EVERYTHING!**

In FALSE TEETH TO CHICKEN: PRODUCTS, ADVERTISING AND YOU, the author, Ralph Davis claims that *the best way to benefit from a good reputation is to keep doing the things that earned it for you in the first place*". Unfortunately, when it comes to environmental catastrophes, a company has to go much further than this. If we understand that crises are a part of organisational life and that they are not limited to those which make the national headlines, we begin to realise the pervasive problems associated with these incidents. A good corporate image and reputation can be severely wounded by a relatively minor incident such as product contamination, a production delay or worker injuries, particularly when considering the "small world" in which we live, assuming that our customers, suppliers, employees, investors and government officials enjoy a relatively intimate knowledge of our companies and their operations.

According to the public relations specialist, Stephenson*, the PR function comprises three distinct duties:

- Routine communications such as annual reports, in-house journals, etc.
- Responding to the media and public, which duty Stephenson claims to be a passive and reactive one.
- The proactive function of creating newsworthy events/statements/products/initiatives. This function would have to include assisting the firm developing a good corporate image with respect to environmental responsibility.

Responding to media and the public, in many situations, can hardly be described as passive and reactive. In fact in crisis management this can be a fatal flaw in the enterprise's thinking. (Slide 20) **PREPLANNING** is essential! (Slide 21) By doing so, a firm may be able to snatch advantages out of adversity, like the Sandoz Pharmaceutical Company did after their incident in which the Rhine River was severely polluted (1986) - their new containment and disposal facility has become the standard for operations of this nature, and their actions have demonstrated their environmental responsibility.

* - Stephenson, D R 1984 Are you making the most of your Crises?
Public Relations Journal Vol 40

The necessity for effective communication is never more prevalent than in a crisis situation and may well be the single most important factor in successfully handling a crisis. One comment or lack thereof can be worse than just embarrassing, it can ruin an organisation's image or reputation.

Let us look at a hypothetical worst case scenario: a toxic gas leak at an installation required the premises to be evacuated. In the rush a worker failed to isolate a valve to one of the waste containment dams and the resultant overflow into a nearby river kills aquatic and bird life for a hundred kilometres downstream. It appears that farmers who use the river water for irrigation and stock will have to find alternative sources for the next two months. The toxic gas cloud has caused an undetermined number of fatalities in the adjoining squatter camp and has necessitated the evacuation of other neighbouring residential areas.

When the company spokesman or CEO is interviewed by a TV reporter his response will affect public perceptions:

"No comment" A safe response which does not put the CEO or the company on the line, or does it? The public hear this as **"guilty as charged, but I'm not admitting it"** or **"this is no one else's business"**.

"We are reviewing the situation". An innocuous reply, but the public may well be hearing **"we haven't got our act together yet because we really got caught with our pants down!"**

"It's only a handful of cows and a few acres of beans it is unfortunate that somebody died but remember that this plant provides employment for 500 workers who in turn support another 10 000 people and the plant generates much needed tax revenues and foreign exchange ...". A callous and short-sighted response that the public understand as **"we have ZERO environmental and social awareness or commitment - our policy is Profits before People!"**

"It appears that the incident may have resulted from conditions beyond our control and that could not have been envisaged we have isolated the leak and contained the effluent overflow clean-up and salvage operations are in progress we have people assessing the damage suffered by third parties and are taking steps to assist those affected we have arranged emergency medical facilities to handle the injured people are encouraged to make use of our hotline if they require help or information ... an investigation is already under way to establish the cause of this terrible disaster and we assure the public and our employees that we will take every step necessary to prevent a similar occurrence happening in the future". A timely, honest and well balanced response, obviously structured according to a well-defined crisis communication plan. Such a response minimises the possibility of misinformation, misinterpretation of the facts and damage to corporate image and reputation. The public has the perception that the company has the situation under control and that the company itself is caring, reasonable and responsible.

It is worth noting that a crisis, because of its very nature, elicits extraordinary media attention and its influence can be widespread. The news media therefore becomes one of the most important groups with whom communication must be developed.

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The crisis management plan must resolve at the outset who is to be the spokesman. It may be a grave mistake to assume that the CEO should automatically be the spokesman (particularly if this is done post-incident). The crisis management team should select a person who will best present, explain and/or defend the company's position. In certain situations it may be prudent to elect more than one spokesman, the first to put forward the company's position and cover general questions, the second to be a person with the technical expertise to explain any specialised aspects relating to the crisis.

In formulating the crisis communication plan it is a requirement that everyone who will be involved in the execution of the plan be involved in its development. It is common for top management to delegate its participation in this sort of planning, hardly a prudent state of affairs.

Further, the crisis communication plan must address the following questions:

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- Who is responsible (and who is the back-up) for notifying employees?
- Who is responsible (and who is the back-up) for notifying the media?
- Which municipal, local and national authorities have to be notified regarding certain incidents, and who is designated to do so?

(Slide 24)

- Switchboard operators are often the "face" or "voice" of the company.
 - Who will brief them about responding to reporters and the public in general?
 - Are they aware of who to contact within the company if they receive numerous calls or queries of a certain type?
 - Is there a plan to establish a "hotline" to deal with complaints and enquiries, or to control rumours during a crisis?

9. **REVIEW AND MONITOR PROGRAMME**

This step, carried out on a regular basis, serves to ensure that there is compliance with issued standards. It is of particular importance to a firm that has invested heavily in its environmental image, as a relatively minor environmental mishap, incident or misdemeanour can tarnish that good image. This again emphasises the importance of planning for crises and having the ability to carry out correctly formulated remedial actions including proper P.R.

Programme reviews also brings to light factors such as process, input material and product changes as well as new technology that may alter the firm's exposures and risk profile. The review and monitoring functions may also uncover hitherto unforeseen damages or exposures due to long latency periods. These all have to be addressed!

10. **CONCLUSION**

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The justification for the cost of implementing a comprehensive environmental risk management programme is often questioned in the initial stages of such a programme as the benefits accruing therefrom are, at best, difficult to quantify fully. For short-term consideration, however, there is sufficient evidence that self-insured, uninsurable and uninsured losses are significantly reduced, while for the long-term, numerous corporations are able to boast of multi-million rand savings from reduced insurance premiums and loss expenses.

The risk management process should therefore be seen not only as a means of effectively eliminating or minimising risks associated with particular perils and providing other steps to ensure the company's survival; but also as a business function that contributes positively to an organisation's bottom line.

As the private sector is expected to take increasing steps to protect and conserve the environment, the risk management function has to be the obvious business tool with which this objective can be attained.

REP4395.JB
5 August 1993