



Environmental Insurance Market Review 2002

Willis

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# Foreword

Environmental liability insurance has become a key risk finance solution. Originally developed to plug pollution gaps in general liability policies it is now accepted as a much broader business tool. It is now being regularly used to facilitate commercial transactions and other business ventures. The flexibility of insurance based solutions to environmental problems has enabled many companies to strengthen their balance sheets and enhance stock value.

This specialist class of insurance is inherently complex and generally demands input from a variety of professional advisers, including the insurance broker. A detailed understanding of the legal liability issues, the technical risk characteristics and the financial components of each project is crucial if insurance is to deliver maximum value to the client.

The global volume of environmental insurance premiums is well over \$1 billion and is expected to grow significantly in the future. Demand for environmental insurance solutions is at an all time high and continues to grow.

This first edition of our Environmental Review focuses primarily on the environmental insurance market in Europe. This is an emerging market with major potential. We also provide an insight into the established insurance market in the United States which provided the initial driving force behind which this sector exists. Taken together the capability exists to address the environmental risk exposures of our clients on a global basis.

Willis is committed to further development of this market. This review is designed to help our clients understand how they may benefit from effective use of this exciting sector of the insurance market. I am confident you will find this review helpful in your deliberations on environmental coverage. We would be delighted to receive your feedback on the review and look forward to working with you.

**Joe McSweeney**

Chief Executive  
Willis Global Risk Solutions

# Introduction

The development of environmental insurance has been evolutionary rather than revolutionary. It originally developed in response to the imposition of pollution exclusions by liability insurers. Its subsequent evolution has been driven and shaped by many factors including changes in legislation, the increasing complexity of modern business transactions, and the growing pressure on companies to demonstrate adequate risk control to shareholders.

From being a relatively small niche market environmental insurance has moved on to its present status where it represents a significant component of the overall insurance and risk management strategy of many businesses. In the process, it has also become a major revenue stream for certain insurers.

The evolution of the environmental insurance market has also led to the development of innovative risk finance programmes that have opened up business opportunities and activities that might not previously have been undertaken. For example, environmental insurance has assisted enormously in the growing trend for brownfield development and is being used to remove or transfer liabilities which in the past would have undermined many corporate deals.

The UK environmental insurance market is still embryonic but the growth rate is phenomenal. The major environmental insurers in the UK are reporting a significant rise in the amount of business that they are writing. In response they are expanding their operations and recruiting more personnel. New insurers are also looking to participate.

Environmental insurance is similar to the general market in that it is subject to continual change as a result of various factors including competitive pressures, the dynamic insurance cycle and, of course, world events. As insurance brokers, one of our roles is to monitor these developments to ensure that we can provide our clients with the best advice and the most competitive solutions.

The aim of this inaugural review is to provide insurance buyers, professional advisers, financiers and other interested parties with:

- a concise overview of the main products
- an update on the prevailing market conditions
- an insight into how these products are being applied
- a review of the some of the developing trends



# Corporate Environmental Risk Management

Demonstrating effective management of environmental risk is a key priority for companies wishing to reassure stakeholders and proactively manage their corporate reputation.

Investors and analysts take environmental risk management very seriously and recent press reports have highlighted how concerns over legacy contamination liability can have a dramatic impact on an organisation's share price.

Whilst companies face a diverse range of environmental liabilities, potentially the most financially significant exposures tend to fall into the following broad categories:

- Operational pollution risks - e.g. the use and storage of potentially polluting materials
- The legacy of pre-existing contamination resulting from historic day-to-day operations
- Known environmental obligations - e.g. decommissioning or restoration costs
- Consequential losses associated with the above issues - e.g. loss of production if a facility has to close during remediation

The upgrading of pollution control procedures and the continual improvement of environmental management systems will, of course, reduce the probability of a major environmental loss during ongoing operations, but cannot eliminate it entirely.

Furthermore, the discovery of unexpected contamination, the impact of tightening legislation and increasingly strict enforcement could lead to additional unanticipated liabilities.

Many companies have established reserves for environmental liabilities or capital budgets for improvement programmes, land redevelopment etc.

New accounting rules have changed the way that companies can provide for these costs. Furthermore, the financial uncertainties are such that it is impossible to accurately predict whether such provisions will be adequate.

These risks and the associated financial implications can have a material effect on a company's liquidity and even its balance sheet strength, which may in turn undermine investor confidence. It is therefore important that companies adopt methods of managing the financial consequences of environmental impairment.



# A Lawyer's Perspective

**Caroline May, Hammond Suddards Edge**

We have asked one of the United Kingdom's leading environmental lawyers to provide her perspective on environmental insurance. Caroline May is a partner with the Safety, Health and Environment Group at the national law firm Hammond Suddards Edge. She is recognised as a leading specialist in environmental law and has practised exclusively in this area for the past 15 years.

In my view the UK environmental insurance market has finally come of age! The new contaminated land regime and the Government's initiative for brownfield regeneration have provided a major stimulus for the growth of environmental insurance. Furthermore, the draft EU Directive on environmental liability (published on 13 November 2001) will ensure that environmental liabilities are at or near the top of corporate agenda over the next decade.

The current economic climate and the associated financial uncertainties mean that companies are looking to ringfence their liabilities in order to preserve asset values, maximise profits and minimise risks. In almost every commercial transaction, environmental liabilities are now on the checklist.

Sites which have potential contamination or pollution liabilities, either from historic or present usage, need to be analysed and dealt with within the transaction. In situations where a number of locations are involved, the risk assessment process can be lengthy and time consuming.

Environmental insurance can provide a mechanism whereby risks can be analysed, assessed and transferred - providing certainty for the contracting parties. This is particularly effective where sites have a known industrial past and where the perceived risk of latent pollution is difficult to assess and is even harder to quantify.

Deadlocked deals can be unlocked for the price of the premium and securely rated insurance companies can be used to underpin warranties and indemnities from counterparties with weak balance sheets.

Large property portfolios can present a mixed bag of risks and once again the inherent flexibility of environmental insurance can provide solutions which can improve deals.

Where there are particular time pressures or financial constraints on a deal, environmental insurance again allows the risk to be quantified, budgeted and dealt with. In my experience, the risk can be underwritten as quickly as the deal demands.

The UK environmental insurance marketplace is still emerging. A small number of insurers are offering realistic products and an even smaller number of specialist brokers understand the nature of the risks, the commercial drivers and the regulatory framework. The range of insurance products for environmental and health and safety liabilities is still relatively small - the majority of environmental insurance products address latent pollution risks.

I believe that the future development of the market depends upon expanding the insurance product range, extending cover and providing competitive deals.

Increasing regulation for environmental, health and safety liabilities in Europe will provide ongoing pressure and demand for these products.

Environmental insurance is here to stay. We all have a responsibility to help develop this market but only those who have the systems to keep abreast of developments and have the necessary specialist skills, will be able to exploit the many commercial opportunities, which will arise in this area.

**Caroline May**

Head of Safety, Health and Environment Group  
Hammond Suddards Edge, London

# Insurance Market Commentary

During 2001 the environmental insurance market showed its real potential. Premium volume has increased substantially. More significantly, pioneering deals have been put together which demonstrate clearly that insurance provides a credible solution to major environmental risk issues - whether related to corporate transactions or operational exposures. The foundations have been laid upon which Willis expects a sustainable insurance market sector to be built.

Willis estimates that for 2001 the worldwide premium income from environmental insurance and risk financing was in excess of \$1.5 billion. Although still small relative to the property and liability insurance market as a whole, this represents a very sizeable figure.

The majority of the premium is still generated in the United States. This income is a combination of conventional insurance and alternative risk transfer deals and we examine the current state of the US market in chapter 8. The total premium within Europe is small by comparison.

We estimate that up to £25 million in premium was written in the London market during 2000 and this figure almost doubled during 2001. This represents very rapid growth - five years ago the income was too small to measure.

Only a relatively small number of insurers write specialist environmental products. On a global basis the environmental insurance markets are still dominated by the insurers who developed their environmental accounts in the US including AIG, Zurich, ECS (which is now part of XL Capital), Chubb and Kemper.

In Europe the majority of the premium income is currently split fairly evenly between AIG, ECS, Allianz (via its agent Certa) and Zurich.

The continental European market is characterised by the presence of national pollution pools and limited schemes such as the German model form (Umwelthaftpflichtmodell).

The specialist environmental insurers are now able to demonstrate that they can offer more effective and competitive solutions for many environmental risks without the inherent restrictions on wider programme design which result from participation in pool schemes.

Willis is seeing encouraging growth in European business particularly in territories which have recently introduced new environmental legislation such as Sweden. Like Willis, the main environmental insurers are also investing to ensure they can derive maximum benefit from these trends.

Tony Lennon of ECS Underwriting says "Tightening environmental legislation across the EU is leading to an increased awareness of environmental liabilities which in turn is focussing interest on insurance solutions. We are experiencing a significant increase in business from mainland Europe and beyond.

One of the most significant developments in the last 12 months has been the recognition of the inherent limitations of some of the European pollution pools. We are able to supplement the protection available from the pools by providing additional capacity, enhanced cover and in some situations, cover in territories which the local insurance pools are unable to provide cover for."

Over the past two to three years there has been some vigorous competition as the market has begun to find its feet. This competitive pressure has on the whole been directed towards coverage issues although pricing was softening until recently.

## Insurance Market Commentary

Competition has influenced the shape of the insurance products that are available today. The gap between the cover which the market was originally offering and the evolving needs of the potential client base has narrowed considerably in the past year or so. This convergence has played a major role in the rapid growth of the market.

Original coverage options were often based on North American wordings and structures. They were relatively inflexible with maximum policy periods of perhaps no more than five years.

Companies and their professional advisors were understandably suspicious of the original policy forms, some of which had over thirty exclusions. 'EIL' insurance was considered expensive and only available for low risk sites. As a result environmental insurance was seen as ineffective and the market stagnated.

The leading insurers adapted their approach, prompted by clients' demand for more commercial solutions. Firstly, they looked much more carefully at the regulatory regimes and particular risk exposures in Europe. Then they moulded their underwriting procedures and insurance products to reflect the needs of European clients.

Over a relatively short period of time the market has developed a high degree of flexibility. Insurers have recognised the need to respond to the needs of their clients which often reflect very specific characteristics of a deal or territory.

Richard Davies from AIG reports that "the new contaminated land regime has undoubtedly raised awareness of potential environmental liabilities here in the UK. This, coupled with the growing expertise of leading brokers and the development of innovative products, has driven growth."

The key development for environmental insurance was the market's willingness and ability to provide covers for facilitating commercial transactions. This class of insurance now differs from other lines because it is often seen as an investment not an expense - a tool for adding value. The prime reason for purchase is often not concern over the underlying environmental risk but the potential deal enhancement. In the main it relates to the management of risk perception.

The market has revealed an appetite for transferring the financial consequences of contamination scenarios which might have historically required composite programmes or "ART" deals. Whilst we do not expect this situation to change in the short term, we do anticipate the emergence of more sophisticated ART based deals for cleaning up balance sheets and managing long term cash flows.

Ian Martin of Certa comments that "market opportunities for environmental liability insurance are expanding exponentially. We are now seeing five times the volume we were when we launched in late 1997 and we believe we are still only scratching the surface.

"We believe that the key to continued success in the environmental insurance market will be close collaboration between insurers and insurance brokers to ensure that clients (and their other professional advisers) are aware of the risk issues they face and the potential solutions the insurance market can offer to help achieve their objectives".

Clients expect their professional advisers to engage with each other and work together. The team working between brokers and other professional advisers has provided an ideal arena in which to develop the various coverages and explore the outer limits of insurers risk appetites.

## Insurance Market Commentary

Owen Lomas, Head of the Environmental Law Group at Allen and Overy reports: "The ability of insurers to provide back to back cover with the terms of indemnity agreements has certainly opened some doors. We have observed a significant increase in the demand for environmental insurance in the context of mergers and acquisitions. It also helps greatly that the market can now provide portfolio coverage for deals that span the globe"

Whilst a hardening of the European environmental insurance market is inevitable, we do not expect it to follow the dramatic pattern we are experiencing in the general liability and property sectors. Pricing is however firming and we expect this trend to continue throughout 2002.

There has also been an impact on the availability of very long policy periods. Insurers are now showing a marked reluctance to provide cover beyond 10-12 years. Longer periods remain available from some markets but only in relation to carefully selected cases and for much higher premiums than we have seen in the recent past.

A key factor for the direct insurers is the stance of the reinsurance market which is seeking opportunities to increase prices and impose coverage restrictions. However the market leading insurers are large organisations with the ability, if they choose, to increase their net retentions and preserve their flexibility.

Kathleen Dwyer from Zurich says that: "Capacity is not generally an issue, the large global players have enough capacity to address almost all risks that are presented to them. However, there is the potential that smaller players may have trouble accessing reinsurance capacity in the future as this market starts to tighten."

One of the main developments in the market during the past year has been the emergence of claims. The Willis claims management team is now dealing with a small number of claims relating to environmental policies and

we are aware of further claims in the market. The payment of valid claims is a key step in the evolution of this sector as it has underlined the market's credibility.

We are experiencing other issues as this sector matures. The insurance market is to some extent suffering from the problems of success. As an example, insurer response times are slowing as the number of enquiries increases.

Underwriting environmental risks is highly technical and there are a limited number of experienced underwriters in what is, in insurance terms, a very new class of business. All of the insurers are investing in more resource but it takes time to get the right people trained and up to speed.

We expect to see new entrants to the market over the next 12 months. A number of major insurers with environmental teams in the United States are sounding out the opportunities in Europe. In our view there is plenty of room for new players as the potential growth in the market can accommodate them.

Over time, the expansion of the market and the pressure to innovate can only be good news for our clients.

Despite the obvious uncertainties in the global economy, it is our view that the environmental insurance market will continue to grow strongly. Even if the prevailing financial conditions stem the flow of commercial transactions, progressive companies will focus attention on deriving value from underperforming assets and consolidating their operations.

In today's market there is no reason to risk having an uninsured environmental loss or to hope that general liability policies will provide adequate pollution protection. We expect increased demand for operational pollution coverage, possibly structured to provide catastrophe protection, which will be integrated into the wider environmental risk management functions and insurance programmes.

## Insurance Market Commentary

The Willis strategy is to develop the best possible presentations for the market, having already identified the issues that underwriters will want to focus on and then designing innovative and creative solutions - thus building up trust and confidence.

At a very early stage we give our clients the clearest possible idea of what can be achieved and the likely costings. This allows Willis to approach insurers with well presented, prequalified enquiries - which are likely to end up as placements. This gives us an immediate advantage in getting our insurance propositions processed efficiently.

Looking forward, we see an increasingly mature and effective environmental insurance market showing strong growth. So far the focus has been North America and more recently the United Kingdom. However clients have environmental exposures wherever they operate in the world. Cover can now be placed in almost all regions and territories and we expect major expansion into continental Europe over the next few years.



# Key Environmental Risk Financing Products

Environmental insurance is not a single product but a flexible tool for managing specific environmental problems. Environmental risk varies from situation to situation and the nature of the exposure is defined by many factors including the physio-chemical characteristics, the unique liability profile of the individual parties, any contractual liability apportionment, the prevailing legal framework etc.

In recognition of this issue, the specialist environmental insurance market has developed a highly adaptable approach to the design of risk transfer solutions for these complex exposures. As outlined in the previous section, many of the products originated in the United States but have since evolved to reflect local requirements.

Insurers and brokers are able to produce bespoke insurance solutions which are tailored to cover the specific risk exposures associated with a given scenario. This requires the attention of a multi-disciplinary team to review the legal, financial and technical exposures and then translate liability allocation concepts into an insurance contract.

Policy wordings are generally uniquely crafted for each risk. They can incorporate the wording and triggers of relevant indemnity contracts or lease agreements, they can be designed to dovetail with general liability programmes and they can be structured to reinsure existing captive programmes.

Policies can also be augmented to provide additional cover for consequential losses or related exposures such as directors' and officers' risks.

The various insurers all have different risk appetites and preferences. To complicate matters they all use different terminology and the coverage details vary from insurer to insurer. It is not therefore helpful to pigeonhole the different products offered by each carrier.

It is however possible to broadly categorise the main policy types offered by the specialist market. It should not be assumed that all the specialist insurers offer all the product categories listed overleaf.

# Corporate Environmental Risk Management

## Pollution Liability Insurance

*(known by proprietary insurer names such as Environmental Impairment Liability ("EIL"), Contaminated Land Insurance ("CLI"), Pollution Legal Liability ("PLL"), Pollution and Remediation Legal Liability ("PARLL"))*

Pollution liability insurance typically protects the insured against unanticipated losses associated with 'unknown' pollution conditions.

In particular, the cover generally extends to the following:

- third party claims for damage or bodily injury
- mandated clean up costs - on or off site
- legal defence costs, costs of investigation etc

This class of environmental insurance can be further sub-divided into operational pollution coverage and historic contamination coverage.



### i) Operational Pollution Risks

Many commercial and industrial operations present an ongoing risk of pollution or contamination (e.g. leakage from underground storage tanks). Specialist covers are available to indemnify the insured against ongoing pollution risks resulting from unanticipated discharges, leakages or spillages etc and fill any gaps in general liability policies.

### ii) Historical Contamination Cover

Insurance can be arranged for liabilities associated with pre-existing historic contamination. Cover can also be arranged for contingent liability exposures associated with previous divestments by the target company.

It is possible to combine both operational and historic pollution cover into a single policy.

The policies can be extended to cover consequential losses such as business interruption or economic loss associated with contamination (e.g. loss in rental income, costs of relocation, diminution in property values etc).

Pollution liability insurance can cover risk exposures associated with land that is 'already contaminated' or is likely to be. Insurers distinguish between land which is impacted with contaminants but where expert opinion suggests there is no immediate requirement for remediation and land where expert opinion suggests that immediate clean up is required to ensure compliance.

In the latter situation, where there are 'known pollution conditions' or cost obligations, the insurers can offer other liability management options as outlined on the following pages.

# Corporate Environmental Risk Management

## Warranty and Indemnity Environmental Insurance

*(also known as Property Transfer Pollution Liability ("PTP"))*

The negotiation of Warranties and Indemnities form a significant part of structuring corporate transactions.

Such contractual mechanisms are regularly used to allocate liability for environmental risk. Often this issue can become a deal breaker.

This type of policy gives back to back cover for contractual liabilities flowing from indemnities and warranties. Cover is limited to liability arising from the relevant contract. The definitions and provisions of the contract are written directly into the insurance policy which removes any possibility for potential gaps in cover.

It does not automatically include any liability that the insured might have outside the terms of the relevant contract. This can be addressed separately.

This form of cover can be used to unlock negotiations and protect the balance sheet of the indemnifying party.

## Contractors Pollution Liability

*(generally known as "CPL" cover)*

This is a specialist form of pollution liability insurance designed specifically to protect the pollution risks facing remediation or construction contractors that are working on sites which are potentially contaminated.

Such operations present an ongoing risk of pollution or contamination for example as a result of disturbing or remobilising existing contaminants or following unanticipated discharges, leakages or spillages etc.

Many project specifications require adequate pollution liability insurance. Contractors can arrange this on a portfolio basis or on a project by project basis.

## Professional Indemnity Insurance

*(PI, also known as Professional Consultants Liability)*

Most PI policies contain similar pollution exclusions to general liability policies. Specialist environmental insurers offer PI policies with no pollution exclusions and which indemnify professional advisers for claims and liabilities resulting from errors and omissions in their services.

Companies engaged in both environmental contracting and consulting operations can purchase combined CPL and PI cover.

# Corporate Environmental Risk Management

## Remediation Cost Cap Insurance

*(also known as Stop Loss cover)*

Cost cap insurance is designed to minimise the uncertainty associated with clean up projects by providing the extra funds to complete the works in the event of a cost overrun resulting from the discovery of additional contamination or under performance of the remedial technology etc.

It is often combined with a 'wrap up' cover to protect against pollution liabilities associated with the actual clean up operations and the long term effectiveness of the completed scheme.

## Specialised Covers

Some of the insurers offer specialised policies which are based on the above main categories but have been refined for specific purposes such as landfills, underground fuel storage tank portfolios, asbestos removal etc.

## Blended Finite Programmes

*(also known as Alternative Risk Transfer ("ART"))*

Environmental insurance, like any other class of insurance, will only cover fortuitous issues for which an appropriate risk assessment can be carried out. It will not provide for unavoidable, pre-identified expenditure which is required for regulatory compliance such as remediation obligations, decommissioning/restoration liabilities etc

Cost cap policies can be used to cap these 'known' liabilities, alternatively more sophisticated composite structures (blending insurance with discounted funding techniques) can be used to transfer both 'known' cost obligations and the associated 'unknown' risks (i.e. timing, cost overrun etc) into the insurance market.

Typically, these funding mechanisms involve the creation of an off-balance sheet funding vehicle. The fund (which in effect is an insurance policy for a 'known' risk) is invested in the capital markets with a target return equal to the estimated worst case remediation cost - at the end of a prescribed time limit, say, ten years.

In the event that the funds are needed within the prescribed period (i.e. to pay for mandated remediation), the insurer would provide the requisite funds. In the event that the original cost estimates were exceeded, the insurer would pay the excess.

If however the anticipated costs do not arise during the prescribed period, or the costs are less than anticipated, the accrued fund (or a proportion thereof), net of fees, is returned to the Insured.

## Secured Creditor Policies

*(also known as lender liability or collateral protection)*

These policies protect lenders which have loans or investments backed with real estate collateral. The value of the lenders' security could be affected by environmental impairment or more significantly the lender may have a direct liability if it takes possession on foreclosure.

In the event of environmental impairment and subsequent loan default, these policies will typically pay off the outstanding loan value or the estimated clean-up costs. They also provide an element of third party cover for the lender.

The policies can be structured to cover existing loan portfolios or new loans going forward. They cover the lenders position directly and enable banks to lend on higher risk deals. The implications of the proposed Basle Capital Accord will give even greater focus to this issue.

# Principal Applications of Environmental Insurance

Environmental insurance and related financial risk mitigation mechanisms are being used in an ever expanding range of applications. Despite the prevailing hard insurance market the specialist environmental insurers continue to demonstrate a willingness to innovate and consider new refinements or product applications.

This section will provide a review of some of the main applications for environmental insurance, illustrated by recent Willis European case studies.

Like other risk issues, environmental risk exposures typically crystallise during transactions and the allocation of these liabilities can become a significant point of contention between the various parties.

In many cases, the perception of environmental risk may be greater than scientific reality. Nevertheless such perceptions can still erode enterprise value or even threaten the completion of deals.

Environmental risks are very difficult to quantify and therefore cannot reliably be incorporated into financial models. As a result, lenders and equity partners focus on environmental risks.

## Case study 1

### Disposal of Manufacturing Operations

A UK FTSE 100 company was selling off some of its manufacturing operations across the globe in a number of separate transactions. Some major contamination issues and associated environmental liabilities were involved. The liabilities represented a major concern to potential purchasers and therefore could reduce the return from the disposal programme.

Working with our client and its legal advisers, Willis devised a transaction strategy which made use of indemnities to retain the environmental liabilities associated with each deal. The contractual risk exposure was then transferred into the insurance market with "back to back" cover provided for each separate indemnity agreement.

The enhanced return from the disposal programme was reportedly more than ten times the cost of the various insurance policies. The largest of the series of deals involved manufacturing operations at over 30 sites in over 15 countries and four continents. The indemnity provisions covered both known and unknown environmental liabilities, and also contingent financial exposures such as business interruption costs.

# Principal Applications of Environmental Insurance

Environmental insurance is playing an increasingly crucial role in the management of the environmental risks associated with mergers and acquisitions.

It can be used to:

- eliminate/mitigate potential 'environmental' deal breakers by transferring financial responsibility to an insurer
- reassure lenders and investors, so enabling acquirers to raise finance and reduce the cost of borrowing
- protect acquirers from long tail environmental liability exposures after completion
- provide security against buyer/seller creditworthiness concerns
- enhance negotiating positions and deliver more favourable terms
- quantify and cap actual or potential remediation liabilities or environmental obligations
- replace the need for discounting, and so maximise return for a vendor
- replace indemnities or warranties and ensure clean exits for vendors or equity partners
- wrap around and underpin existing warranties and/or indemnities

Environmental insurance is rarely used in isolation but it can offer real advantages over other risk allocation mechanisms.

## Case Study 2

### Sale of an Aggregates Business

A European multinational was looking to dispose of a subsidiary operation in the UK. Environmental risk issues had been assessed by the vendor's consultants. Willis developed an insurance policy to cover the various risks and uncertainties highlighted in the due diligence reports. The vendor then offered an environmental insurance policy as part of the proposed deal - in lieu of any indemnity or price discount. The potential purchaser originally had concerns about environmental issues but the insurance policy was considered comprehensive enough to provide the requisite security and the deal was completed. The vendor provided full disclosure and therefore sought to exclude itself from future liability under UK law. The sale and purchase agreement contained a provision relating to the procurement and maintenance of the insurance policy and the agreed terms. Willis worked with the purchaser's legal advisers and brokers to ensure the insurance policy matched its requirements. Both vendor and purchaser are insured on the policy. The policy covers a number of quarries and associated production plants. It provides indemnification for 7 years.



# Principal Applications of Environmental Insurance

## Property Transactions/Development Projects

The arrival of new environmental insurance products has had a significant impact on brownfield land development. Insurance based risk transfer mechanisms are being used to remove residual risk exposures.

Concerns tend to centre around financial uncertainties (e.g. escalating clean up costs resulting from the discovery of additional contamination) and the potential long term liability exposures. Such fears have had a considerable impact on the value of land with an industrial legacy.

### Case Study 3

#### Large Scale Redevelopment Project

A Willis client, a developer, had an opportunity to join a joint venture to develop a very large industrial site in the UK. Whilst the potential returns were substantial, there were complex contamination problems. The company was prepared to take on the challenge but did not want to expose its balance sheet to the considerable environmental uncertainties. The planned remediation strategy necessitated large scale excavation and removal, the creation of an on-site containment cell for contaminated waste material and installation of plant and equipment for the long term treatment of groundwater. We worked with our client, the various joint venture partners, the vendor and the insurance market to build an insurance policy which reflected both the commercial objectives of the parties and the very particular risk issues at the site. Cover extends to the waste containment facility and will pay for its complete relocation if this is ordered by a regulator at some point in the future. A key feature of the policy was an option to hive off cover to future developers who may purchase parts of the site from the joint venture company. The availability of this insurance protection was a key factor in the company's eventual decision to participate in the project.

## Property Portfolios/Housing Stock Transfers

Within large property portfolios it is not often not possible, in a cost effective manner, to identify and accurately evaluate the potential 'skeletons in the cupboard' and the likely liability ramifications.

As the environmental insurance market continues to develop, many clients are now taking advantage of the opportunities to place cover on a portfolio basis to protect long term interests.

One of the areas where these products are playing an important role is in the transfer of council owned housing stock to registered social landlords. Since the purchaser often has such limited capital resources, contamination liabilities are a major consideration.

### Case Study 4

#### Property Portfolio

A UK based retail organisation operates from a mixed property portfolio comprising over 1500 individual sites within Europe. The sites are a mixture of freehold and long leasehold properties and include small high street retail outlets, large out of town superstores and distribution depots. The company was keen to protect itself against historic contamination and operational pollution risks - particularly in view of the introduction of the new contaminated land regime in the UK. Willis was able to arrange environmental insurance to cover the entire portfolio on the basis of existing information (i.e. no new surveys were required) within a three year renewable policy. New acquisitions are automatically covered subject to additional premiums if the total portfolio floor space increases by more than 10% during the policy period (or a rebate if appropriate).

# Principal Applications of Environmental Insurance

## Public Private Partnership/PFI projects

The potential risks facing concessionaires or project consortia extend to contingent losses in the event of either project delays (e.g. cost penalties, increased costs of working, loss of revenues) or future loss of use in the event of re-emergence of contamination (which could lead to a suspension of government funding). This can affect the ability of the PFI consortium or project company to service its debt commitments.

It is possible to design insurance solutions to cover most of the financial uncertainties associated with contamination and pollution risks.

### Case Study 5

#### PFI Project

A UK PFI project entailed the development of a fully integrated waste management system in the Midlands. The project included the construction of various reclamation facilities, the construction of a waste to energy plant and the operation and expansion of the waste management facilities for a 25-year concession period. The deal was structured in such a way that the successful bidder was responsible for the 'legacy' liabilities associated with a portfolio of operational landfills. Willis, on behalf of the international consortium which won the contract, negotiated a 10-year environmental policy with a £10 million limit. This covered both historical contamination risks in addition to ongoing pollution risks associated with both the construction and operational phases. The policy contained an extension to replace any loss of funding or revenues resulting from any pollution or contamination issues.

## Infrastructure Development Projects

Effective management of environmental risk is particularly critical in project finance deals which generally involve a large number of participants within a convoluted contractual framework

In view of the complexity of these deals and the nature of the funding arrangements (i.e. the project company is often a thinly capitalised special purpose vehicle), project lenders and sponsors require exhaustive reinsurance that all project risks are identified and adequately controlled or, ideally, transferred. Even then they will often require parental guarantees or other security.

These projects typically involve many phases. It is possible to combine different environmental insurance products to cover the various financial exposures associated with each aspect of the project.

### Case Study 6

#### Port development

Willis recently designed and placed a multi faceted environmental insurance solution for a port development project in one of the Baltic states. The insurance solution involved a cost cap policy, to protect against remediation phase budget overrun, and a pollution liability policy covering both the development and operational phases. The insurance contained a £25 million limit delayed start up extension which covered debt service costs, delay penalties and increased working costs in the event of a claim on the main pollution policy.

# Principal Applications of Environmental Insurance

## Investment/Loan Protection

Environmental risks are often a key concern for lenders and private equity investors and can act as a barrier to otherwise attractive projects.

Lenders face indirect risks i.e. the ability of the borrower to pay back the balance of a loan - or potentially, direct liability if, for example, they have to take possession. Private equity providers want to focus on high yield investment opportunities yet minimise liabilities during their period of ownership. Furthermore, not exit, they want to maximise enterprise values and avoid any residual liabilities or complications.

Funders and equity investors can ensure that insurance solutions are structured to protect the underlying project or alternatively just protect their own direct interests.



## Case Study 7

### Loan Default

Willis structured environmental loan default protection for a European bank looking to finance the acquisition of a utility company. The company owns and operates a number of major power plants. One of the banks prime concerns was the potential for default in the event of a major environmental incident. By combining a number of different insurers, Willis was able to put together a lender protection programme which covered the loan for the eight year loan period. The loan terms stipulated that the bank would be entitled to call in the loan after a generation interruption of over 12 months. It was perceived important to protect the bank and the insurance carriers from the moral hazard associated with the borrower finding out that the cashflow/funding was secured in the event of a release causing a default. Therefore the borrower was not aware of the lender protection programme.

## Case Study 8

### Management Buy-In

Willis recently advised a private equity provider in relation to £100 million investment into an aviation sector management buy-in. The vendor was not willing to provide indemnities in relation to historic contamination risks highlighted in the due diligence surveys. Willis was able to structure an environmental insurance programme to insulate the investor against any unknown clean up costs or third party claims during its period of involvement. The policy was also used to maximise the value upon exit by ensuring full transferability

# Principal Applications of Environmental Insurance

## Operational Risk Management

The growing need to address uninsured exposures has led to the incorporation of specialist environmental insurance policies within corporate risk management strategies. These blanket programmes typically provide 'sleep easy' catastrophe protection for such exposures on a renewable basis.

The policies are designed to dovetail with the general liability programmes and cover operational pollution risks, historic contamination liabilities and associated contingent exposures.



## Case Study 9

### Waste Management Company

A major European waste management company was seeking to obtain insurance protection against environmental liabilities associated with its past and current operations. Its business activities included waste incineration, solvent reclamation and the operation of numerous waste treatment facilities, transfer stations and landfills - most of which were closed but still monitored. The company was looking to build in a substantial retention and was seeking catastrophe cover for pollution exposures. Willis was able to structure and arrange an environmental insurance programme covering these pollution risks in the specialist environmental insurance market. Since the environmental policy carried the 'sudden and accidental' pollution risks, Willis was also able to make substantial premium rate reductions for the general liability programme.

## Case Study 10

### Oil Refining Operation

The energy and chemical sector is increasingly using environmental insurance as part of its normal portfolio of insurance cover. Willis recently structured and placed a combined operational and historical contamination cover for a multi-site petrochemical company. The environmental insurer was positioned as a reinsurer of the company's captive. The underwriting approach was to focus on understanding the quality of the client's environmental management system. It was not necessary to carry out detailed surveys at each site.

# Principal Applications of Environmental Insurance

## Remediation Projects

Remediation projects regularly overrun for a variety of reasons and insurance mechanisms that are used to provide budget certainty can prove to be more reliable and cost effective than transferring the risk to a contractor (via a fixed price contract) or trusting to chance.

### Case Study 11

#### Remediation Capping

A large client of Willis was selling a redundant site. It was known to be heavily contaminated and remediation was required in several areas of the site. The client was concerned to as far as possible fix the budget for this operation. Part of the solution was to engage the remediation contractor on a fixed price contract. The final price related to removing all contaminants from specified areas of the site. The client was still at risk if contamination was found to extend beyond the specified areas. Willis placed an insurance policy that is designed to pay for additional costs of remediation beyond the boundaries of the specified areas. The objective of reducing the potentially large variability of project cost was achieved by combining the contractual and insurance approach.

## Balance Sheet Engineering

Accounting standards require publicly quoted companies to disclose their environmental liabilities on their financial statements. Structured solutions based upon 'blended' policies (incorporating elements of self funding and risk transfer) can be used to remove, or at least offset, environmental liability provisions from the balance sheet and reduce the risk of earnings volatility.

They typically include a profit sharing provision to reward a favourable loss experience. Such programmes help companies to free up credit capacity (and reduce borrowing costs), release reserves, manage cash flows, exploit tax advantages and therefore enhance shareholder value.

### Case Study 12

#### Remediation Obligations

A Swedish manufacturing company with major contamination exposures associated with over 100 industrial sites across Scandinavia was looking for a method to cap its liabilities, and reassure investors. The company had carried out site investigations across their portfolio and estimated the 'known' clean up costs, for which provisions had been established. It was recognised that there remained a substantial risk of cost overrun and/or additional 'unknown' risks. Willis designed a blended solution, covering both the 'known' cost element and the potential 'unknowns'. The 5 year policy was placed with one of the specialist environmental insurers and the primary layer (covering the estimated clean up costs) was reinsured by the company's captive programme. Willis worked together with the client's captive management team, the legal advisors as well as the auditors to ensure that all the tax and legal requirements were addressed.

# Effective Use of the Insurance Markets

The design and placement of an appropriate environmental insurance solution requires input from many parties/professional advisers. It needs careful management to ensure it provides the greatest value to the client.

To obtain maximum benefit, you need to get the best possible deal from the insurance market (in terms of coverage and premium cost). This is where objective and professional insurance advice from a broker, with the necessary experience and capabilities, can be so important.

There are a number of key considerations which should be taken into account when designing a risk transfer solution.

## Risk Transfer Objectives

It is very important that the objectives for an insurance solution are clearly mapped out before any approach to the insurance market is undertaken. A poorly considered submission to insurers can damage underwriters perceptions and undermine the potential for future refinements to achieve a more appropriate solution.

Willis works with its clients to draw up a risk transfer strategy. This involves assessing all the potential risk exposures (including contingent risks), determining the risk management objectives and then evaluating the various insurance options. The next stage is to determine the information requirements and then prepare an appropriate underwriting submission.

It is important to design an appropriate insurance structure which will reflect the project objectives and prove cost effective. Much of these considerations relate to the risk bearing capacity of the potential insured parties and the maximum plausible loss scenarios.

## Insurer Selection

Many considerations need to be borne in mind when selecting a preferred insurer. It is important to identify a suitable insurer panel on the basis of clear prequalification conditions (e.g territorial capability). Once relevant insurers have responded with insurance proposals, selection of a preferred carrier should be based on a set of clear criteria.

These selection considerations will include:

- Proposal terms - e.g. breadth of coverage
- Length of policy
- Insurer capacity
- Insurer security (insolvency risk)
- Reinsurance arrangements
- Established claims record
- Proposal pricing

Selection of the insurer against carefully considered criteria is key to achieving an effective result.

# Effective Use of the Insurance Markets

## Project Management

Many projects, especially those relating to commercial transactions, are extremely time sensitive and require tight planning and management to ensure that an appropriate policy is ready to bind by the required deadline.

It is important therefore to identify project milestones, determine potential failure points and interdependencies and facilitate information flows. This can be especially challenging if the deal involves many different countries or more than one insurer (e.g. specialist environmental insurer and a captive insurance company).

## Policy Negotiation

The negotiation of the insurance contract involves three main considerations - legal liability, technical/scientific and insurance. The process will therefore involve input from the broker, the legal advisers and potentially the environmental consultants.

The insurer will produce a preliminary wording which will serve as a starting point for negotiations. The wording will invariably require amendment and modification to fit the specific requirements of the project.

Some of the most important issues which need to be analysed in depth are:

- Insuring agreement - this is the operative clause for the entire contract and therefore needs to be as tight as possible
- Exclusions - many insurers have specific issues (such as underground storage tanks) which they routinely seek to exclude. Where relevant these exclusions have to be negotiated individually.
- Disclosure - there is both a contractual and common law duty to disclose all information that might have a material impact on the risk covered by the policy. It is crucial to manage this disclosure process effectively.
- Cancellation conditions - it is important to match the policy cancellation conditions with the best interests of the insured parties.

## Effective Use of the Insurance Markets

- Severability/Non - Vitiating - if there is more than one insured party it is crucial to build in robust severability provisions so that the actions or omissions of one party are not imputed on the other parties
- Claims management - some of these policies will run for many years, it is important to agree practical claims notification procedures and then implement policy management procedures to ensure that the insured parties can comply with these obligations.

The value of the insurance solution will be determined by the outcome of these negotiations so it is important to rely on an adviser with the right skills and experience.



### The Role of a Broker

The insurance markets are constantly moving - new insurers enter the fray, markets change on a cyclical basis, insurers launch new policies and new precedents are set. It is essential that the companies considering purchasing these products have access to insurance advisers that are tracking these changes so they can exploit developments and obtain the best terms.

The insurance broker's role should not to be confused with the role of an underwriting agent which is generally tied to a single insurance company and whose sole fiduciary obligation is to that insurance company.

The insurance broker acts in the client's interests, obtaining the best terms and conditions available from the insurance market, at the most competitive price.

The broker's role extends beyond the essential knowledge of the markets. Willis in many cases finds itself at the heart of a project team involving all of the clients professional advisers on a major project. Investment in our global environmental practice means that we can field insurance, scientific and financial expertise as required.

This level of resource is essential to meet the many interesting challenges that arise across the globe when structuring and placing environmental insurance.

# Current Developments in the Environmental Insurance Market in the United States

Ken Ayers, leader of the Willis Global and US Practice, provides an insight into the state of the environmental insurance market in the United States.

In common with the rest of the world, in the US many classes of insurance are experiencing significant increases in premium and decreases in available capacity. The environmental insurance market however is not suffering to the same extent in 2002. The market capacity will remain virtually unchanged and premium increases are anticipated to be significantly less than those experienced elsewhere in the market. A good estimate would be between 10%-15%.

The market's positive attitude was illustrated by the response to events immediately following the strikes against the World Trade Centre and the Pentagon. All of the major environmental markets stepped forward in the spirit of co-operation and in less than a week agreed to provide over \$200 million of environmental coverage to insure the clean up operation.

There are areas of concern however. As in the European markets there is pressure on policy periods. Policies covering property transfers will be limited to a maximum of 10 years in specific circumstances. Policy terms for operational and contractor's cover will be limited to maximum of 3 years with significant resistance to providing coverage beyond a single year.

In past years excess and umbrella liability underwriters have been willing to provide some limited form of environmental coverage. It is anticipated that this limited cover will be withdrawn in 2002. The cover of course can be bought back using the specialist environmental insurance.

Five major environmental products will continue to dominate the US market in 2002. Demand for pollution liability policies in relation to property transfer continues to be strong as firms continue to divest non-core activities and redevelop and utilise properties. Coverage enhancements such as natural resource damage, non-owned disposal sites and counter party risk will ensure continued growth in this segment.

Remediation cost cap programmes continue to be a significant part of the US market. Two major developments will have some impact in 2002. The first will be restricting coverage to projects with expected costs greater than \$2 million. The second will be underwriters requiring a nominal fee for engineering services expended during underwriting if the coverage is not bound. The first is as a result of significant losses from small cost cap policies, the latter from the large numbers of aborted enquiries.

Operational coverage for industrial and manufacturing activities will continue to be a strong segment of the environmental market. The withdrawal of coverage in excess and umbrella programmes will increase demand.

Contractor's Pollution Liability has always been a key component of the market. In 2002 small contractors will find coverage is not available from the major specialist markets. Fortunately smaller markets such as Gulf and Zeneca will step in and fill the gap. A greater problem will be the difficulty in securing bonding for environmental projects. The environmental surety picture for 2002 is still uncertain.

The biggest development in the US market in 2002 will be the demand for blended or finite programmes. This is being driven first by the re-emergence of asbestos as a major environmental concern. The focus of litigation has now moved from the major asbestos manufacturers to the firms that used or distributed products obtaining minor amounts of the substance such as dry wall tape and compound, ceiling texture, gaskets and respirators. Finite programmes provide these firms with a method of managing often significant balance sheet liabilities. The second driver for finite programmes is their role in developing an "exit strategy" which allows the client to walk away from long term environmental liabilities. AIG, Chubb, ECS/XL, Hartford and Zurich have become the major players in environmental finite programmes.

# Key Contacts

The Willis Environmental Practice has unrivalled experience in the design and placement of environmental insurance programmes and is an acknowledged leader in this specialist area.

The Practice has a global capability and comprises over 50 specialists from a variety of different industrial and professional backgrounds. We have personnel in most territories and the main Practice Group leaders are listed below.

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