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UK ENVIRONMENTAL POLLUTION

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♦ UK ENVIRONMENTAL POLLUTION ♦

"In the 1980's, companies were forced to become lean and mean. In the 1990's, such is the growing extent of civil liability for environmental damage, they are having no choice but to become green and clean" - C Napier.

INTRODUCTION

The number of potentially contaminated sites in the UK is estimated at between 50,000 and 100,000, with area estimates of between 50,000 and 120,000 acres. If these sites were to be cleaned up, the maximum estimated cost is of the order of £30 billion, excluding litigation costs and third party claims.

Two pieces of recent legislation, namely the Environmental Protection Act 1990 (EPA 90) and Water Resources Act (1991), have emphasised the need to control the contamination of land.

Twenty per cent of Europe's biggest companies have been prosecuted for infringing environmental laws. In the UK these include National Power, Mobil Oil, Shell, ICI, Bernard Matthews and a private prosecution of Albright & Wilson. There were over 25,000 reported water pollution cases. In 1988, 38% of cases were attributed to industry and oil pollution represented 60% of the total number of industrial incidents.

1. A BRIEF HISTORY OF POLLUTION COVER IN THE UK

1.1 In the UK, companies have historically been able to obtain cover for their environmental liabilities under general public liability policies. This cover has been provided by insurers as an element of standard cover with no separate premium calculated or identified. These policies have generally been written on a "losses occurring" basis, and have therefore responded to any environmental damage occurring in the policy period, even if this damage has not manifested itself until many years later. Every site or location of operation of a company has been covered by a single policy, with no survey of either the environmental status of the sites or the exact nature of the processes carried out on any site, prior to cover being granted. Although these policies may often have limited the insurer's liability from any one event, there has rarely been an aggregate limit of liability.

1.2 There are problems associated with the provision of cover on this basis which arise owing to the special nature of environmental pollution liabilities.

(i) It can take a long time for pollution damage to manifest itself, so that environmental liabilities are long-tailed. If cover is provided on an occurrence basis then the liabilities arising from a policy may take many years to finally quantify.

(ii) Environmental damage usually occurs gradually, so that it is difficult to identify a single event, happening at an identifiable time which gives rise to a quantifiable amount of pollution damage. If a series of annual policies are written on an occurrence basis then it is difficult to quantify the liabilities attaching to each policy. In addition, in the absence of any survey, it is difficult to identify pollution that has taken place prior to the inception of the first policy.

(iii) Insurers have little experience or expertise at evaluating risk exposures. In the absence of environmental audits of sites and processes insurers are unlikely to estimate accurately the likelihood or magnitude of any specific potential pollution incident.

1.3 These problems have been compounded in recent years as the government has responded to social pressure and has introduced new legislation.

This legislation aims to deal with existing pollution and to discourage future pollution. In 1990, the increase in potential liabilities of insurers as a result of this legislation, and of some civil liability court decisions, led the Association of British Insurers to comment:-

"recent legal trends are hastening the day when insurers will be unable to offer pollution cover as part of standard policies".

Indeed, in April 1991, a standard pollution clause recommended by the ABI was introduced into most general public liability polices. This clause excludes all pollution liabilities other than in respect of pollution caused by:-

"a sudden, identifiable, unintended and unexpected incident which takes place in its entirety at a specific time and place during the period of insurance".

i.e. "gradual" pollution.

1.4 Full pollution exclusions (i.e. those excluding both "sudden" and "gradual" pollution) followed on policies for companies operating in certain "high-risk" industries. General public liability policies were not the only policies to be amended. In addition, all pollution liabilities were excluded from directors' and officers' policies and from professional indemnity covers (especially for environmental consultants!).

1.5 The situation had become increasingly unsatisfactory. As a result of the new legislation, companies feared greater environmental liabilities and so were seeking more extensive cover. At the same time insurers had reduced the cover available, but where cover was still provided had dealt only with the problems of gradual pollution.

1.6 One way in which the insurance market has responded is by introducing new types of policy to the UK designed specifically to cover only environmental liabilities. These products may then be used as a complement to general public liability policies containing pollution exclusions.

Such a product, Environmental Impairment Liability (EIL) Insurance, is described in more detail in the next section.

The way has been led by a few specialist companies and Lloyd's Syndicates with experience of providing cover for environmental liabilities in the US. Policies are strictly underwritten, usually with the underwriter taking advice from environmental consultants and from scientists with expertise on industrial processes, properties of pollutants and pollution channels. Polices may have low aggregate limits and high deductibles and continuing cover is conditional on high levels of risk management and loss control being exercised by the insured.

Such an approach to providing cover for environmental liabilities may encourage higher environmental standards from industry and may avoid some insurance insolvencies.

2. ENVIRONMENTAL INSURANCES

Environmental Impairment Liability (EIL) Insurance

2.1 This product has been available in the UK since around 1990. It is offered by a handful of companies including Zurich and Swiss Re. and a number of Lloyd's syndicates. In addition, some companies with extensive experience of the US environmental liability market, such as AIG and Reliance Mutual, have recently entered the UK market.

The standard EIL policy differs considerably from the pollution cover provided historically under general public liability policies.

EIL cover has the following features:-

(i) It is site-specific. The policy covers environmental liabilities arising from operations conducted at a single specified site only. If a company operates on more than one site then several EIL policies are needed.

(ii) Cover may be provided either for (a) sudden pollution only, (b) both sudden and gradual pollution, or (c) gradual pollution only.

(iii) Coverage is provided on a claims made and reported basis.

(iv) The standard EIL policy covers bodily injury, property damage and clean-up costs for third parties. It does not cover own site clean-up costs.

2.2 **EIL Policies - The Limitations of Cover**

EIL policies typically contain a considerable number of exclusions which need to be considered on a policy-by-policy basis in order to see precisely what cover is being provided.

(a) Sudden and accidental occurrences

Where an insured has in force a public general liability policy containing the standard ABI pollution clause excluding gradual pollution, then an EIL policy covering gradual pollution only may be sought. In such cases, the EIL policy would exclude claims "caused by and being the direct or indirect consequence of any sudden unintended and unexpected environmental impairment".

(b) Claims arising from events prior to the inception of the policy

Any claims arising from environmental damage prior to the inception date of the policy are excluded. This can be a severe limitation in the case of gradual pollution given the typical length of time between a polluting event and the manifestation of damage. For the insurance to respond it is required that the event causing the gradual pollution commenced after the inception date of the policy. Since cover is on a claims made and reported basis, it is also required that claims are made prior to the expiry date of the policy.

For this reason, it is often the case that if a series of successive annual policies are taken out then the "retroactive date" remains the same (the date of commencement of the first policy), so that as time progresses then the effect of this limitation reduces.

(c) Inevitable consequences of the business

A further main exclusion of EIL policies is in respect of any liability arising from environmental impairment which is "inevitable having regard to the cumulative effect of the normal business of the insured and where the harmful nature of any contaminant or irritant was known or should reasonably have been known by the insured".

Two potential areas of dispute are introduced by this exclusion: first, as to what environmental damage is "inevitable"; and secondly what level of knowledge the insured is deemed to possess. Note that this exclusion may not operate in the event that a business process formerly considered safe is discovered to have a harmful effect on the environment only when the damage manifests itself.

(d) Failure to comply with regulatory regime

"Any liability arising from environmental impairment as a result of non-compliance with any law or regulation" is excluded "if senior management are aware or should reasonably have been aware of such non-compliance and fails to take reasonable steps to remedy it". This exclusion may not operate if senior management were unaware of legislation. Does this mean that management is indemnified against negligently operating in ignorance of the law?

Note also that this does not exclude civil liabilities or liabilities arising from legislative changes after the event responsible for the environmental impairment (such as those relating to water quality in the Cambridge Water Company case).

(e) Deliberate acts

Also excluded is liability which results from intentional, deliberate or conscious acts or omissions on the part of senior management, and which could reasonably have been expected by them having regard to the nature and circumstances of such an act or omission.

(f) Circumstances of which the insured has knowledge

Any claims arising from any circumstances of which the insured was aware prior to the inception of the policy will be excluded.

(g) The owned property exclusion

Damage to property presently or formerly owned or occupied under the control of the insured is excluded. This exclusion will generally prevent the recovery of clean-up costs in respect of the insured's own land. However, the issue may not be clear cut where cleaning-up the insured's property will have the effect of avoiding or reducing damage being caused to the property of a third party.

(h) Costs of complying with regulatory regime

Any clean-up or improving operations and activities in respect of the property which are considered to be routine, normal or imposed by regulations are excluded.

2.3 Underwriting EIL Policies

Before providing cover, the EIL underwriter must assess the pollution exposures of the site for which a policy is required. Key elements of this assessment will include determining whether the site has any existing pollution and the likely incidence and magnitude of any future pollution from the site, either sudden or gradual. (A further consideration is where future social or legislative changes are likely to increase the site's pollution exposures). Underwriters may not possess the scientific and engineering expertise to make the necessary assessment of exposures. Instead, a survey or "environmental audit" of the site to be insured is required before terms can be agreed. This survey is necessarily extremely detailed and its cost, which may be considerable, is borne by the applicant. The applicant will not wish to incur this expense if it is unlikely that insurance will be made available on acceptable terms. Before a survey is conducted, therefore, a detailed application form is completed. This is designed to provide the underwriter with sufficient information regarding the site to be insured to determine whether the site is likely to be insurable and enable him to give a non-binding premium indication.

Information provided on the application form will include:-

- site diagrams
- details of the adjacent environment
- results of any previous environmental surveys
- present and past site processes
- materials handled on site
- environmental management and risk control procedures
- waste disposal procedures

If this information suggests that the site is likely to be insurable at a premium level acceptable to the applicant then the environmental survey is undertaken. This aims to assess existing contamination and to identify any potential problems with site operations that may result in pollution. It also gives an independent expert assessment of the environmental risks associated with the site. The survey not only assists the underwriter but also provides the site operators with an objective audit of operations including recommendations on improved risk management to reduce future pollution exposures.

The underwriter cannot delegate the task of risk assessment to the surveyor. He should be able to properly review the surveyor's report and this will require both technical knowledge and experience. The underwriter must be familiar with current legislation and be aware of likely future changes which may affect the pollution liabilities of the site.

2.4 EIL Policies - some problems

EIL policies have not proved attractive to potential insureds for a number of reasons. These include:-

(i) multi-site companies. Since the EIL policy is site-specific, then companies operating on more than one site will require more than one policy. Each site will be subject to its own environmental survey.

(ii) low levels of cover available. Companies may require higher policy limits than the EIL insurer is prepared to provide under a guaranteed cost policy. Typical policy limits in the UK may be of the order of £5 million.

(iii) the number of exclusions. The exclusions detailed in section 3.2 may severely limit the cover provided.

(iv) "affordable only if unnecessary". EIL cover may only be made available following a detailed environmental survey of the site to be covered. The cost of this survey must be borne by the insured. The insured may reason as follows:-

Firstly, if the survey shows the site to be a problem site then considerable costs must be borne (e.g. on improving environmental standards) in order that the site is insurable at an affordable premium; in which case it may be worth self-insuring the risk in any event. On the other hand, if the survey shows the site to be low risk, then again the risk may be worth self-insuring.

(v) "ignorance is bliss". Companies may wish to avoid their environmental shortcomings or the contamination of land held as a balance-sheet asset being identified by an environmental survey.

2.5 Environmental Remediation Insurance (ERI)

Section 61g of the Environmental Protection Act 1990 (EPA 90) contains provisions allowing local authorities to recover the costs of cleaning-up a polluted site from the current site owner, irrespective of who caused the pollution. Even if clean-up is not undertaken, then the market value of the site is likely to be adversely affected by the presence of the pollution owing to the potential liability transferring to any new owner.

It follows that the discovery of previously unknown environmental damage on a site can have serious financial consequences for the site owner. These potential liabilities pose particular difficulties for commercial property developers for whom the viability of a development may be threatened by the discovery of any environmental damage on a development site.

(Note that this is an example of legislation having the opposite effect to that intended. EPA 90 is clearly intended to help protect the environment and yet one of its effects is to make virgin land more attractive to property developers!).

Environmental Remediation Insurance is a policy covering own-site clean-up costs, which is designed specifically for commercial property developments. Clean-up costs for any environmental damage found on the site are covered providing that the damage was already on the site before the policy commenced but was not discovered until after the policy commenced.

ERI policies are site-specific as for EIL and cover is provided on a claims made basis. The initial policy term may be up to five years with annual renewal thereafter.

Although ERI contracts are made between insurer and site owner, ERI may also protect other parties with a legal interest in the site, such as lenders or parties to leases. It may, therefore, help asset owners to overcome some of the potential problems described in section 4.

3. CLAIM AND LEGAL ISSUES

3.1 Legal Considerations

It has always been possible to obtain legal redress in common law.

(1) **Negligence**

A polluter owes a duty of cover to the injured party and a breach of that duty has caused an injury to the plaintiff and to his property.

(2) **Nuisance**

The actions of a person actively interfere or disturb a neighbour in the exercise of his ownership or occupation of his land.

(3) **Trespass**

Strict liability for environmental damage goes back to Rylands -v- Fletcher (1865). This establishes the principle of strict liability under nuisance in that any person who brings something onto another's land which then escapes and causes damage is liable, regardless of fault.

3.2 Section 73 of EPA 90 introduced further civil liability over and above the common law, where persons illegally depositing waste or permitting such depositing is strictly liable for all damage.

In addition, civil liability is also introduced for costs incurred by regulating authorities in preventing and redressing pollution.

3.3 Set out below are two examples of liability claims. It should be noted that in neither of these cases has the question of cover under an insurance contract arisen. One of the issues that has not yet been addressed is the extent of cover under insurance contracts and the validity of the exclusion clause.

3.4 Example 1

In the Armley district of Leeds, many properties are contaminated by asbestos. A local factory making asbestos products, J W Roberts, was closed in 1958 and currently over 30 or more people who live in the contaminated houses are suffering from mesotheliema - a rare form of lung cancer which can only be caused by asbestos fibre.

Leeds City Council undertook a survey sampling dust in roof voids, cellars and under floor boards. Of the 290 homes surveyed, evidence of asbestos dust was present in 90% of the cases.

The Council decided that the properties must be decontaminated, at an average cost of £7,500, which would cost £6 million for the 800 or so homes involved. Some homes are owned by the Council, but others have been purchased from the Council, under "right-to-buy schemes". Individual owners may have to meet the cost of the clean-up, although grants are available.

Many residents are protesting against the costs and refuse to be re-housed. The Council is reacting by threatening to declare the properties unfit for human habitation, and are also contemplating taking the residents to court. Whilst the issue remains unresolved the houses involved are effectively un-saleable, with local estate agents often declining to take instructions on them.

3.5 **Example 2**

Cambridge Water Company/Eastern Leather Case

Eastern Leather (ELC) is an industrial company established over 100 years ago. In 1976 the Cambridge Water Company purchased a borehole.. In making this purchase CWC satisfied itself that the quality of the water met the then EC directive.

In the many years previously ELC had been using organochlorides and spillage of these chemicals prior to 1976 had contaminated the water - but not sufficiently to fail the then EC water quality requirements.

In 1985 the EC issued a new directive and the pollution exceeded the revised limits. CWC were forced to sink a new borehole, the costs of which were then claimed from ELC. The claim was one of nuisance.

In the original case Justice Kennedy decided against CWC on the basis of Rylands -v- Fletcher. He decided the use of organochlorides by a tannery to clean hides was not a "non-natural" use of land.

CWC appealed. The Court of Appeal held that Rylands -v- Fletcher did not apply because the CWC case involved the tannery's liability for spillage of chemicals rather than liability for the escape of chemicals. They raised Ballard -v- Tomlinson (1885).

This case involved the right of a landowner to pump water from beneath his land as a "natural right" and was "an incident of the ownership of the land". Tomlinson had disposed of sewage and refuse from his printing works into the water used by Ballard's brewery.

The Court of Appeal held:-

(1) It does not matter whether the spillage was accidental or deliberate.

(2) No importance could be attached to the fact that CWC suffered damage only when quality standards changed.

3.6 **Environmental Protection Act 1990 and the Register of Land**

Section 143 of EPA empowered the Environment Secretary to form a Register, to be developed and maintained on land that may be contaminated.

The first list of contaminated uses (May 1991) was subjected to such fierce lobbying from the property industry that it firstly delayed the introduction of the Register by 12 months and reduced the original number of contaminative uses from 42 to 8 (see Appendix 2). This was estimated to exclude some 85% to 90% of the land previously covered. The compilation was to be finalised in July 1994.

The Register was to be split into two categories. Part A was for land that had not been investigated nor treated. Part B was for land that had been investigated or treated.

The lobbying did not abate. In February 1993, the Environment Secretary indicated he would abolish "unnecessary regulations". In March 1993 the Register was finally abandoned.

It must be remembered that clean-up cannot be enforced. The ownership or occupation of contaminated land is not an offence. Hence clean-up is usually triggered only by a wish to sell the land. The absence of a Register to some extent confuses the issues. It would be foolhardy for a purchaser of land not to have an environmental survey undertaken and not to negotiate any clean-up costs as part of the price.

The impact on insurance companies' liabilities is probably minimal. The impact on their assets may be more substantial. This is in respect of sites they own themselves and their share-holdings in companies which have a significant potential exposure in property (e.g. banks, mortgage defaults) or for which a substantial part of the value of the equity is represented by the property. These issues are discussed in section 4.

3.7 One of the other issues was who is responsible for the Clean-up of the Contaminated Site. This is particularly relevant in the case of different Owners, Occupiers and Polluters. This has to be tested, but it appears the Occupier is responsible and seeks redress from the Owner or Polluter. This is again a question that will need addressing in the Courts.

3.8 **Pollution Wording**

Case Law on policy wording is limited in respect of pollution. Indeed case law is limited per se - pollution covers were generally included until the new ABI wording of 1991.

"This policy excludes all liability in respect of pollution or contamination other than caused by a sudden identifiable unintended and unexpected incident which takes place in its entirety at a specific time and place during the period of insurance".

"Own site" contamination has commonly been excluded for some time as have "deliberate acts".

In 1986/87, reinsurers restricted pollution to the "sudden and accidental" event. There appears to be a "coverage gap". In general, most public liability policies have per event limits below the reinsurance trigger and those with a potential for recovery should have had their wordings amended.

The other issue is that pollution cover in the ABI wording is limited vertically (per event) and horizontally (in the aggregate). NMA 1685, which is the Lloyd's equivalent, has no such limit of aggregation.

The crucial issues yet to be tested are:-

(1) The events that trigger a claim on a policy.

(2) The extent to which the liability is restricted by the new wording.

4. ASSET IMPACTS

4.1 Pollution has always had a potential to impact the values of property assets. New legislation, and the heightened awareness of pollution issues that will accompany it, may soon realise that potential for some UK property assets. Of particular interest to insurers should be the possibility of each side of the company balance sheet weakening simultaneously, i.e. asset values falling whilst liabilities are increasing, owing to pollution exposure.

4.2 This section aims to identify groups of assets, and hence owners of assets, affected by pollution and the related legislation and considers possible consequences for asset values. The changing role of various parties in property transactions is discussed, and finally action is suggested which we think might be taken in an attempt to mitigate the financial effects of the new legislative environment on property ownership.

Assets and Owners

4.3 Assets relevant to a paper on UK pollution will include all types of UK property owned directly for business, investment or other purposes as well as other assets linked to UK property directly, e.g. property company shares, or indirectly, e.g. shares in environmental engineering and industrial waste disposal firms.

4.4 UK property assets comprise residential property, offices, shops and retail warehouses, other business premises, e.g. industrial complexes, factories, hotels and petrol stations, farmland and other land. Any of these types of property may already be polluted or become polluted as a result of its historic use, its current use or as a consequence of pollution migration from a neighbouring site.

4.5 Direct property assets are principally owned by private individuals and companies to live in, conduct business from or for investment purposes. Institutions such as pension funds and life insurance companies also have very significant direct property investment portfolios. Such institutions are also indirect owners of property investments via shareholdings in companies with property assets, as are millions of individuals. Individuals may also have a financial interest in UK property via pooled investments such as unit trusts, investment trusts, life assurance policies and as pension fund members.

4.6 There is a further category with an important contingent financial interest in UK property matters, namely those institutions which lend money secured on property. Principally, this concerns banks in the case of commercial lending and building societies for residential lending, although both groups, of course, actively trade in both types of loan.

Valuation Effects

4.7 In general, when purchasing property, an asset is acquired which is a combination of two types of asset, with essentially different characteristics:-

- A building requires regular maintenance and occasional refurbishment and will nonetheless typically diminish in value over time as the fabric deteriorates, before eventually becoming obsolete.

- Land, however, has traditionally been thought of as an asset requiring little maintenance and expected to maintain its value in real terms over time. Land values vary with changing demand patterns, as different areas become more or less desirable, and agricultural land varies in its physical quality, but generally land has been thought of as not subject to diminishing values as a result of increasing supply or fundamental deterioration.

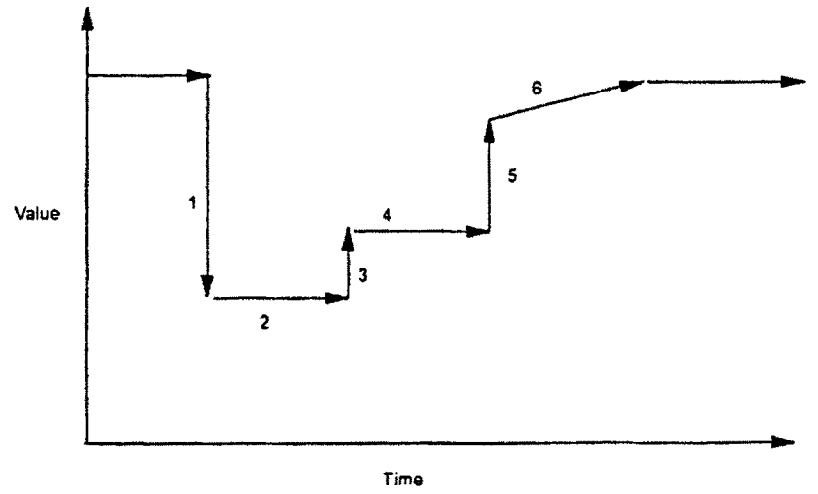
4.8 Leaving aside the impact on values caused by building contamination, of which the most notable example is the alleged contamination of buildings in the United States by the presence of asbestos, this paper is concerned primarily with pollution to land itself. This is the primary focus of legislation, as embodied in the concept of a contaminated land register.

4.9 It is helpful to review how UK property assets are valued. Valuation is carried out by a surveyor and is therefore an inherently subjective process. The gross return on a property investment comprises of two elements, a stream of rental income and a changing capital value. From the gross return, expenses of management, maintenance and refurbishment and transaction costs have to be deducted. These expenses are already significant compared with those for alternative types of investment.

4.10 Although the detail of UK and EC legislation concerning environmental pollution differs from that which has been in place in the US for some years, the "polluter pays" and "strict liability" principles are common to legislation on both sides of the Atlantic. It may therefore be instructive to examine some results of US research when considering the possible effects on UK property values of society's changing attitude towards pollution as enshrined in legislation.

4.11 The following diagram and accompanying notes are reproduced from a US research paper "The Impact of Hazardous Materials on Property Value" dated April 1992 by Mundy.

THE IMPACT OF HAZARDOUS MATERIALS ON PROPERTY VALUE



(1) This is the loss in value when either pollution occurs, or is actually identified. The drop in value shows how buyers and intermediaries perceive risk. It is a large fall because the problem is unknown and this can be called the "dread factor".

(2) The value remains static whilst no investigations are made into the contamination.

(3) The value will improve as the degree of contamination is identified and quantified. It is a case of the problem never being as bad as you first thought.

(4) The value will then be maintained at the slightly higher level as the contamination remains. It is possible that over time a gradual improvement in value could occur as it was realised that the techniques for remediation were becoming more efficient and therefore cost savings could be made. The value could also decline as scientific knowledge improves suggesting that the level of contamination is worse than previously thought.

(5) This is the point at which the decontamination actually takes place and the increase is equal to the amount of money which has been spent on the site, known as the "cost cure".

(6) The value of the property may never return to the full open market value and this is essentially the "stigma" effect. It is thought that over time the stigma will diminish should it become apparent that the problem has been removed successfully.

The importance of investor perception and the impact of knowledge on property values are clearly shown. Obviously the scale of these effects on property values will vary greatly from case to case. What is interesting is the potential for wide variations in value for the same property over time as contamination is identified, quantified and cleaned up. Of great concern though, is the likelihood that the market value may never return to the value prior to contamination being identified. This seems to be a clear implication, as the increase in value at point 5, the "cost cure", merely reflects expenditure on investigating and cleaning up the site.

If you believe that these valuation effects may be observed soon in the UK for direct property assets, it might be expected that similar effects may occur in stockmarkets for assets linked to property in reaction to rumours of contamination and investors' perceptions of environmental risk. It seems probable that, in addition to diminishing values occurring for identifiable reasons relating to specific locations, there will be general "environmental blight" reducing property values across wide areas perceived to carry a high risk of contamination. An example of this might be the Black Country, where it has been estimated that as much as 50% of all property would have appeared on the contaminated land register, as originally conceived by the Government.

Transactions

4.12 Property transactions are already complicated, time-consuming and expensive processes, when compared to other types of investment transaction and involve potentially numerous parties. It is difficult to escape the conclusion that environmental legislation and increased investor awareness of environmental risk will make property transactions even more complicated, time-consuming and expensive.

4.13 These new circumstances will create new roles to be played in property transactions and affect the roles of existing parties. A list of relevant parties follows, with some discussion of the involvement of each. It should be borne in mind that "transaction" can be any negotiation of a contract potentially affecting the value of a property investment, and so includes leases and rent reviews.

- **Surveyors:**
  need to assess the impact of any known or suspected pollution on the property's value.

- **Lawyers:**
  responsible for protecting a client's position and preserving rights of action against other parties, in the event that pollution is discovered post-transaction.

- **Lenders**:
  need to be satisfied that a property provides security of sufficient value and liquidity against which to lend.

- **Environmental consultants**:
  may be retained by any other party to physically inspect a property so as to identify and quantify any existing contamination.

- **Insurers**:
  may be at risk of receiving a claim on an existing liability policy (public liability, employer's liability or professional indemnity);
  need to design and price new policies appropriately, according to the cover for pollution risk offered (if any).

- **Neighbours**:
  potential for migrating pollution between sites leading to contamination and subsequent litigation to recoup costs.

- **Local Government**:
  may be a source of information on historic site usage;
  environmental health and planning departments concerned about pollution risk and site usage;
  potential for detrimental impact on tax revenue.

4.14 The principal parties' roles are, of course, clear. However, the inevitable uncertainty that surrounds the potential cost impact of dealing with pollution clean-up means that purchasers (and lenders) will tend to require a "risk premium" to protect against such a possibility. The size of this risk premium will vary but could be potentially significant for many properties and may prevent some transactions from being completed.

4.15 In all the above, it is important to recall that the concept of "strict liability" means that the owner of a polluted site must clean it up first and seek redress from other parties later.

<u>An example (Mountleigh)</u>

4.16 Although we are unaware of significantly reduced prices being negotiated in UK property transactions as a consequence of real or potential pollution risk exposure, such exposure does seem to have had very serious implications for one major UK property company.

4.17 The Merry Hill shopping centre was built on land in Dudley, West Midlands redeveloped from a previous industrial use. The centre was owned by Mountleigh plc and was valued in excess of £100m. When Mountleigh, in common with many other UK property companies, found itself in financial difficulties in the early 1990's, it sought a purchaser for Merry Hill in order to realise a substantial cash sum. A prospective purchaser was found at a price satisfactory to Mountleigh, but there was then a significant delay as the purchaser was concerned about the possible pollution implications of Merry Hill's position on redeveloped land.

4.18 Mountleigh went into receivership in May 1992, as it failed to realise its interest in Merry Hill quickly enough. Merry Hill was subsequently sold by the receivers to a new purchaser, in February 1993, at a similar price to that which Mountleigh had originally hoped to achieve.

Possible Implications

4.19 The impact of a perceived pollution exposure in this case then was not a direct reduction in price, but a reduction in liquidity. As property is already a relatively illiquid investment, this potential effect must be noted by UK property investors.

4.20 The effect of environmental legislation, and the increased awareness of pollution which it will bring, will be negative on some UK property values. In theory, there should be upward pressure on rental income, to counter increased costs of ownership, but the capital value will fall to provide some allowance for the possibility of significant future pollution-related costs. However, in practice, as there are risks both to health and of business disruption for a lessee occupying a potentially polluted site, current rents may prove to be unsustainable and future rental increases difficult to achieve. Long term leases will be less attractive to occupiers. On the other hand, leases may well be thought preferable to direct ownership of contaminated land.

4.21 This all suggests a move to a markedly higher yield basis for valuing potentially contaminated UK property assets, in order to establish an appropriate balance between risk and reward when compared with alternative assets. In other words, the values of such assets may show an appreciable decline as UK investors become increasingly aware of pollution issues.

4.22 How will owners of UK property be affected?

Institutional investors owning principally offices and prime High Street retail property may find minimal impact on their UK property portfolios. Their main exposure to potential pollution losses is likely to arise from ownership of property built on redeveloped land such as edge of town shopping developments, e.g. Merry Hill shopping centre, and retail warehouses.

4.23 Individuals, as owners of residential property, appear to be at little risk of financial loss as a consequence of pollution. The greatest risk is to owners of property build on land redeveloped from industrial use or adjacent to potential sources of pollution such as industrial premises, defence establishments, airports, petrol stations or landfill sites. The risk to most individual property owners may be slight but it is real. Residential land use is most unlikely to cause pollution, but the "strict liability" principle requires current owners of polluted sites, even if caused by previous use or through migrating pollution, to finance remedial work. Some individuals therefore will find themselves affected substantially, through no fault of their own, and may experience very considerable difficulty achieving any redress.

4.24 Lenders will have to protect themselves against the risk of holding inadequate security, where non-performing loans are secured against property assets with values diminished by concern about potential pollution exposure. Lenders may increasingly either reduce loan-to-value ratios on some property or require insurance indemnities against pollution costs as a pre-condition to lending. It has been reported that Barclays Bank has incurred a £6m loss after taking possession of a contaminated site following the non-performance of a secured loan.

4.25 For institutions owning or lending against portfolios of property, the importance of diversification of their property exposures is clear. Particular care should be taken by institutions with a traditional geographic bias to their property exposures e.g. "regional" building societies. Lending on new residential and commercial property in industrial areas should be controlled by institutions as a proportion of their total portfolios. Lending risk can then be limited or may eventually need to be controlled in alternative ways e.g. by "exchanging" exposure with an institution having a contrasting portfolio bias (diversification by reciprocity) or through riskier properties being owned or financed on a pooled basis, involving several institutions.

4.26 In the short term, there may be a limited opportunity to sell "at risk" property at values which are greater than may be achievable once the UK property market is fully allowing, or over allowing, for pollution risk in its pricing. Similarly, some institutions may consider the purchase of property assets which appear temporarily cheap due to concerns over potential pollution exposure, providing there are firm grounds for believing that the market price over allows for the true risk. Institutions with potential pollution liabilities will not wish to take pollution risks on the asset side of their balance sheets, however.

4.27 In conclusion, the UK property market is becoming more aware of pollution risk, at an accelerating rate. Values of potentially contaminated assets will be re-assessed in relation to pollution risk-free assets, perhaps crudely initially. Good professional advice will be increasingly important in negotiations, but transactions will thereby become still more time consuming and expensive. Potentially affected property will therefore become relatively less attractive as an investment until yields rise to compensate. Such an increase in yields will represent a structural change in UK property values and will cause the owners of certain UK property assets to suffer a one-off capital loss.

5. OBSERVATIONS AND CONCLUSIONS

5.1 When this Working Party started in October 1992, very little information was available. As the study progressed the number of reports, comments and special studies available grew - "Pollution" was certainly flavour of the month.

5.2 In the Working Party we could have produced a monumental thesis on the subject. We have not done this. Following this section in Appendix 1 there is a bibliography of additional reading which is available and contains invaluable information.

5.3 The Cambridge Water Case is one of the most important cases on the subject. At the time of writing a date has been set for a House of Lord's Hearing in November 1993. The results of this case are fundamental to the future of environmental claims in the UK and will certainly give rise to newer interpretation of the key legal precedents.

5.4 The problems from the insurer's point of view are twofold:-

(i) Should the CWC case involve newer interpretations of pollution, there is the potential for some retroactivity in determining liability.

(ii) Future policies will certainly be more restrictive in their cover - indeed cover may even not be available.

We believe insurers should monitor and control their exposures.

5.5 The real initial impact is on asset values and the uncertainty created by the EPA. Insurer's property asset values are under pressure in any case and any hint of Environmental Impairment may result in some property being effectively worthless.

5.6 Insurers who are aware of these problems will control the issues by employing managers with knowledge of environmental engineering; and may indeed, set up their own Environmental Agency or Consultancy. Many Brokers have their own Consultancies and one of the biggest, Marsh & McLennan, has recently sold its Environmental Consultancy Unit.

It is of interest to note that Environmental Consultants were more highly paid than Actuaries in California!

5.7 Environmental issues will continue to raise themselves and the Insurer who brushes them under the proverbial carpet will be in an inferior position to those who really address the problems.

In the UK, companies are increasingly becoming aware of the need to have an environmental philosophy and will expect their insurers to also have one. Products are produced to be environmentally friendly "from the cradle to the grave", and the insurers need to react to these newer opportunities.

APPENDIX 1

Bibliography and Assorted Reading

- ***Environmental Protection Act 1990.***

- ***Water Resources Act 1991.***

- ***Mundy - The Impact of Hazardous Material on Property Values.***

- ***Advisory Committee on Business and the Environmental.***
  Report of the Financial Section Working Groups (DTI and DOE).

- ***Liability Risk and Insurance.***
  Monthly DYP publication.

- ***Composite Insurance.***
  The Environmental Pollution Threat - James Capel 1993.

- ***Environmental Pollution.***
  A Practical Guide - published by DYP.

- ***Environmental Risk.***
  (A supplement to The Review).

- ***Pollutant Industries.***
  Loss Prevention Council.

APPENDIX 2

Contaminative Uses of Land

CONTAMINATIVE USES OF LAND
The Original List (May 1991)

Agriculture	Burial of diseased livestock.
Extractive Industry	Extracting, handling and storage of: carbonaceous materials (except underground workings) of ores and their constituents at mineral workings and processing works.
Energy Industry	Production or processing of natural gas or other carbonaceous material. Thermal power stations (including nuclear). Electricity substations.
Production of Metals (including metal scrap)	Production, refining, heating, melting, casting or recovery of metals. Cold forming processes. Finishing processes.
Production of non-metals and their products	Production, refining and processing of non-metals (mineral processing); Production and processing of mineral fibres (including asbestos). Cement, lime and gypsum manufacture.
Glass making and ceramics	Manufacture of glass, ceramics and associated products (including glazing and vitreous enamel).
Production and use of chemicals	Production, refining and storage of: petroleum, petrochemicals and their by-products, plus recovery; of organic or inorganic chemicals (fertilisers, pesticides, pharmaceuticals etc.) production, refining and bulk storage of industrial gases.
Engineering and manufacturing processes	Manufacture or metal goods; explosives, propellants, ordnance, small arms or ammunition, plus storage and testing; manufacture and repair of electrical and electronic components and equipment plus repair.

Food processing industry	Manufacturing of pet foods and animal foodstuffs. Processing of animal by-products (including rendering and maggot farming but excluding slaughter houses and butchering).
Paper, pulp and printing industry	Making of paper pulp, paper and board, including printing and de-inking.
Timber and timber products industry	Chemical treatment and coating of timber and timber products.
Textile industry	Processes for preparing, treating and working leather. Fulling, bleaching, dyeing or finishing fabrics or fibres. Manufacture of carpets and other floor coverings.
Rubber industry	Processing of natural or synthetic rubber.
Infrastructure	Marshalling, dismantling, repairing and maintenance of railway rolling stock, plus marshalling; marine vessels including hovercraft; road transport or road haulage vehicles; air or space transport systems.
Waste Disposal	Sewage and other effluent treatment. Storage, treatment and disposal of sludge (including from water treatment works). Waste (including scrap) plus, deposition; radioactive materials.
Miscellaneous	Dry cleaning operations. Laboratories for educational or research purposes. Building demolition activities.

<u>The Revised List (July 1992)</u>

(i) Manufacture of gas, coke or bituminous material from coal.

(ii) Manufacture or refining of lead or steel or an alloy of lead or steel.

(iii) Manufacture of asbestos or asbestos products.

(iv) Manufacture, refining or recovery of petroleum or its derivatives, other than extraction from petroleum bearing ground.

(v) Manufacture, refining or recovery of other chemicals, excluding minerals.

(vi) Final deposit in or on land of household, commercial or industrial waste (within the meaning of section 75 of the Act) other than waste consisting of ash, slag, clinker, rock, wood, gypsum, railway ballast, peat, bricks, tiles, concrete, glass, other minerals or dredging spoil; or where the waste is used as a fertiliser or in order to condition the land in some other beneficial manner.

(vii) Treatment at a fixed installation of household, commercial or industrial waste (within the meaning of section 75 of the Act) by chemical or thermal means.

(viii) Use as a scrap metal store, within the meaning of section 9 (2) of the Scrap Metal Dealers Act 1964.

Final List (March 1993)

APPENDIX 3

Sample Policy Wording

INDUSTRIES, SEEPAGE, POLLUTION AND CONTAMINATION CLAUSE NO. 3
(Approved by Lloyd's Underwriters' Non-Marine Association)

This Insurance does not cover any liability for:-

(1) Personal Injury or Bodily Injury or loss of, damage to, or loss of use of property directly or indirectly caused by seepage, pollution or contamination, provided always that this paragraph (1) shall not apply to liability for Personal Injury or Bodily Injury or loss of or physical damage to or destruction of tangible property, or loss of use of such property damaged or destroyed, where such seepage, pollution or contamination is caused by a sudden, unintended and unexpected happening during the period of this Insurance.

(2) The cost of removing, nullifying or cleaning-up seeping, polluting or contaminating substances unless the seepage, pollution or contamination is caused by a sudden, unintended and unexpected happening during the period of this Insurance.

(3) Fines, penalties, punitive or exemplary damages.

This Clause shall not extend this Insurance to cover any liability which would not have been covered under this Insurance had this Clause not been attached.

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Occurrences

Public Liability

(a) Bodily injury to or illness or disease of any person except that arising out of and in the course of his employment by the Insured under a contract of service or apprenticeship.

(b) Loss of or physical damage to physical property not belonging to the Insured or in the charge or under the control of the Insured or any servant of the Insured.

(c) Loss arising from trespass nuisance or interference with any easement of air, light, water or way happening during the Period of Insurance but excluding occurrences as described in Occurrence 3 hereunder:-

Products Liability

(a) Bodily injury to or illness or disease of any person except that arising out of and in the course of his employment by the Insured under a contract of service or apprenticeship.

(b) Loss of or physical damage to physical property not belonging to the Insured or in the charge or under the control of the Insured or any servant of the Insured caused by any commodity, article or thing supplied, installed, erected, repaired, altered or treated by the Insured and happening during the Period of Insurance elsewhere than at the Insured's premised.

Pollution

This Cover shall not apply to liability in respect of Pollution or Contamination other than caused by a sudden identifiable unintended and unexpected incident which takes place in its entirety at a specific time and place during the Period of Insurance.

All Pollution or Contamination which arises out of one incident shall be deemed to have happened at the time such incident takes place.

The liability of ABC for all compensation payable in respect of all Pollution or Contamination which is deemed to have happened during the Period of Insurance shall not exceed the sum stated in The Appendix as the Amount of Indemnity for any one Event.

For the purpose of this Cover Pollution or Contamination shall be deemed to mean:-

(i) all pollution or contamination of buildings or other structures of water or land or the atmosphere and

(ii) all loss or damage or injury directly or indirectly caused by such pollution or contamination.