

ENVIRONMENTAL POLLUTION RISKS AND CAR/EAR INSURANCE'S

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## 1. INTRODUCTION

In this paper attention is given to some aspects regarding the environmental pollution and CAR/EAR insurance's. Because the legal system in every IMIA-memberstate is different, the specific aspects concerning coverage for third party liability and environmental pollution are not taken into account. In this respect it is interesting to mention that recently a "Study of Civil Liability Systems for Remedying Environmental Damage" is published. This study, held by the McKenna & Co Environmental Law Group on behalf of the European Community, provides information on the liability systems with regard to the environmental damage in fifteen memberstates of the European Community, The USA, Norway, Iceland and Switzerland.

This paper deals especially with the environmental pollution risks that CAR/EAR insurers may encounter insuring "The Work" and "The existing property of the Principal". The results of the questionnaire will be discussed in paragraph 2. Although none of the participants of the questionnaire submitted any information on interesting environmental damages, two claims that occurred in the Netherlands are described in paragraph 2 D.

On behalf of the Dutch Association of Insurers the possibilities are studied to create new special insurance's, for all branches, concerning the environmental pollution risks. An outline of this unique project will be given in paragraph three. Finally some conclusions and recommendations are made.

This paper does not provide an underwriting guideline for the insurance of environmental risks. An inventory is given of the possibilities of insuring such risks in the different memberstates of IMIA and this paper may lead to further investigation of the underwriting aspects. Since almost no claims were reported, environmental damage is apparently no particular issue for IMIA.

## 2. RESULTS QUESTIONNAIRE

The questionnaire was sent to all delegates. The two standing guests and only ten out of the nineteen participating countries were able to submit information on this matter.

The objective of this paper is to come to an inventory of the possibilities of insuring the risks of environmental pollution as a part of or in conjunction with the CAR/EAR policies.

Furthermore it is interesting to learn about the loss experiences from the memberstates that provide coverage for these risks.

Before the results are stated it is good to give a definition of environmental damage, also called environmental pollution or environmental impairment:

- a. *the emission, release, discharge, dispersal or deposit of any solid, liquid or gaseous substance which has a hazardous effect in or on the surroundings,*
- b. *the emission, release or discharge of smell, noise, vibrations, waves or variations in temperature which exceeds the level thereof generally prevailing in the surroundings.*

This is a definition used in the Danish Environmental Impairment Liability Insurance.

Another definition can be found in the Dutch Bourse Construction-insurance 1992. In article A.1.8. Environmental Impairment is described as follows:

*the emission, drainage, seepage, discharge, release or escape of any liquid, solid or gaseous substance insofar as it causes effects of irritation, contamination, putrefaction or pollution in or on to the soil, the air, the surface water or any underground water or conduit.*

Furthermore it is good to realise that besides the environment in fact everything and everyone can be harmed by the same incident that caused the environmental damage. Seen from the point of view of the insured (and/or the location where the insured project is under construction) environmental damage can cause financial impact in the following three ways:

- *outgoing*, the insured causes a pollution of the property of someone else. Third party liability of the insured;
- *incoming*, someone else, not insured under the CAR/EAR policy, is causing a pollution of the site. The site will have to be cleaned up and all other related costs will have to be discussed. Legal expenses may form an important part of those related costs;
- *self-inflicting*, the insured causes a pollution to his own site, thereby creating a claim under section I. Other insured parties under a CAR/EAR policy can hold the insured liable for all consequences, resulting in a cross liability. Furthermore the site will have to be cleaned up. In this particular situation "The Existing Property of the Principal" may also be polluted. If the policy provides cover for this kind of risk the pollution results in claims under three sections. A combined loss limit for the sections II and III may be at stake.

L O P ?

Finally nuclear pollution or contamination is generally excluded because of the high cumulation risk involved with this kind of damage. Therefore no further attention is given to this particular kind of pollution in this paper.

We have received the following answers to the respective questions:

*A. Do technical insurers in your country provide coverage for the so called environmental damage or pollution?*

In the answers to this question a subdivision can be made between liability and property.

#### *Liability*

Without going into the details of the legal systems of the memberstates the following can be reported. In most countries environmental pollution is seen solely as a third party liability. If coverage is granted, in almost all relevant countries the damage should be accidental and unforeseen. Gradual contamination or seepage pollution is explicitly excluded. More details about special environmental risks insurance's will be given under B.

As an example how coverage is granted in Great Britain the following wording recommended by the Association of British Insurers is mentioned:

*A) 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.*

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

*B) The liability of the Company for all Compensation payable in respect of all Pollution or Contamination which is deemed to have occurred during the Period of Insurance shall not exceed GBP..... in the aggregate.*

*C) For the purpose of this Endorsement "Pollution or Contamination" shall be deemed to mean*

- i. all pollution or contamination of buildings or other structures or of water or land or the atmosphere; and*
- ii. all loss or damage or injury directly or indirectly caused by such pollution or contamination.*

Finally it is not surprising to mention that if coverage is granted a loss limit applies. This loss limit is mostly applicable for all kinds of costs, like cleanup, disposal of polluted material, removal of debris or legal expenses, relating to one particular environmental damage. In this respect The Hartford Steam Boiler provided the endorsement "Hazardous Substances":

*If, as a result of an Occurrence insured hereunder, any property on the premises described herein is damaged, contaminated or polluted by a substance declared by authorized governmental agency to be hazardous to health, the Company shall be liable under this Policy for the additional expenses incurred for cleanup, repair or replacement, or disposal of that damaged, contaminated or polluted property. As used here, additional expenses shall mean expenses incurred beyond those for which the Company would have been liable if no substance, so declared as hazardous to health, had been involved in the Occurrence.*

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*Payment made hereunder shall be subject to the Sublimit of Liability specified in the Declarations."*

### *Property*

As the name suggests the Construction All Risks and Erection All Risks policies provide cover for all risks unless exclusions are applicable. Consequently we may state that, unless excluded, there is coverage under the CAR and EAR policies for environmental pollution of the insured property. Unless mentioned otherwise property means the work under construction, insured under section I. Depending on the wording of a specific policy the property also includes the ground or soil the project is build on (or in).

In order not to extend the liability to any other (third party) property British Insurers commonly use the following exclusion for the purpose of clarification:

*This policy does not cover loss or damage caused by pollution or contamination other than loss or damage to the property insured caused by pollution or contamination.*

In the General Terms and Conditions for the Insurance of Construction Works by the Principal of New Buildings (ABN), coverage is granted for foundation ground and soil, in so far as they do not form part of the construction work on a first loss basis (Art. 2.e juncto 5.a). A contrario the foundation ground and soil that do form a part of the construction work are fully insured.

Special attention must be given to the extra coverage for *removal of debris*. In most CAR and EAR policies additional limits are covered for the removal of debris. Sometimes these costs are insured as part of the normal costs of repair or restoring in the old situation, and therefore these costs, together with other kinds of costs, can be claimed up to the total sum insured under section I. Especially with large projects the potential costs of removing debris need special attention. The UNI STOREBRAND, Norway, provided the following wording:

*The Company is liable for sudden and unforeseen damage to insured objects.*

*Costs for demolition, clearing up and removal of worthless remains of damaged objects with an amount up to 20% of the insured sum, maximum 100B (1B=ca USD 5000).*

In Austria additional coverage (against an extra premium) exists for the costs (with a loss limit) incurred by the treatment of dangerous waste or material as consequence of an insured claim under the policy.

The clause is called “Mehrkosten durch Behandlung von gefährlichem Abfall und Problemstoffen”. Some typical aspects of this clause are:

- the treatment of dangerous waste must be done in the most economical way;
- treatment of water, air or soil is not covered, even when mixing with the insured matter;
- treatment of matter already contaminated before the loss occurred is not covered and only the costs for treatment of additional contamination are covered;
- additional costs for removal of the contaminated soil are not covered.

The overall conclusion of this first question is that environmental pollution, resulting in third party liability and or damage to the project insured, is covered in most countries on basis of the CAR and EAR wordings. Essential for this coverage is that the pollution is caused by a sudden unintended and unforeseen occurrence. Furthermore, special loss limits may apply.

**B. Is coverage for environmental damage or pollution insured separately or as a part of CAR or EAR wording?**

In some countries separate insurance's are available for the insurance of environmental risks. These insurance's provide cover for the environmental risks **after** the construction period and are based on the principals of liability.

Since October 1988 France has its separate pool for insuring the risks involved with pollution, called ASSURPOL (ASSurance des Risques de POLLution). However coverage is only granted for permanent locations and not for sites of erection or construction. Comparable insurance's exist for example in Denmark, Italy, The Netherlands and Switzerland. These insurance's provide cover for gradual as well as sudden environmental impairment as long as the impairment is unforeseen. Existing pollution at the inception date of the policy is excluded.

In Great Britain an extension to the EAR and CAR insurance's is provided based on a Public Liability cover according to the following wording:

*The indemnity provided by Section 2 will not apply to legal liability in respect of*

- A) Injury*
- B) loss of or damage to material property*
- C) nuisance trespass or interference with any easement right of air light water or way*

*directly or indirectly caused by or arising out of pollution or contamination of buildings or other structures or water or land or the atmosphere happening during any Period of Insurance*

*This Exclusion shall not apply in respect of pollution or contamination caused by a sudden identifiable unintended and unexpected incident which takes place in its entirety at a specific moment in time and place during any Period of Insurance*

*Provided that all pollution or contamination which arises out of one incident shall be considered for the purpose of this Policy to have occurred at the time such incident takes place*

*Subject otherwise to the Terms Exclusions and Conditions of this Policy.*

In The Netherlands special Environmental Impairment Insurance's are being created. One of those new Insurance's specially applies to the environmental risks on and in the vicinity of building and erection sites. This Insurance will be linked to either the CAR or EAR insurance, whereby all environmental pollution risks are completely excluded from the CAR or EAR insurance. For further details see paragraph 3.

### *C. Exclusion of the environmental damage or pollution*

As already stated an All Risks policy provides coverage for all kinds of risks unless explicitly excluded. Because environmental pollution may result in large claims, although within IMIA no such claims are reported yet, it is interesting to learn about the possible wordings of special exclusions.

In South Africa the following two alternative wordings are commonly utilised by way of an exclusion to the Third Party section of a CAR insurance:

*1. liability in respect of injury, damage or loss of use of property directly or indirectly caused by seepage pollution or contamination provided that this exception shall not apply where such seepage pollution or contamination is caused by a sudden unintended and unforeseen occurrence during the period of this insurance.*

*the cost of removing nullifying or cleaning up seeping pollution or contamination substances unless the seepage pollution or contamination is caused by a sudden unintended and unforeseen occurrence during the period of this insurance.*

*fines, penalties, punitive or exemplary damages resulting from pollution or contamination.*

*2. Seepage pollution or contamination or any costs in connection with the nullifying or cleaning up seeping pollution or contamination substances unless the seepage pollution or contamination is caused by a sudden unintended and unforeseen happening unconnected with any gradually operating cause.*

The Dutch Bourse Construction-insurance 1992 contains a definition of Environmental Damage, see page 3. Section II, Third Party Liability, article 5.g, and Section III, Existing Property of the Principal, article 3.f, both contain the following exclusion:

*loss or damage in connection with environmental harm, unless this environmental harm is a sudden and accidental occurrence and this occurrence is not directly caused by a gradual or gradually effective process.*

In Section I, The Work, the aforementioned exclusion is not mentioned. Underwriters have to be cautious insuring projects involving environmental risks. The exclusion can also be declared applicable for Section I.

None of the other members submitted special exclusion-clauses regarding environmental damage or pollution.

#### *D. Interesting loss experiences*

Unfortunately, for the purpose of this paper, none of the other members could provide information about an interesting claim regarding the environmental pollution.

In The Netherlands two interesting claims were reported, the first by Hannover International Insurance (Nederland) N.V. and the second by Praevenio Technische Verzekeringen B.V.

The first claim occurred during the reconstruction and decontamination of the premises of an old factory of pesticides. Due to seepage pollution by poisonous mercury and other chemicals the soil as well as the groundwater had to be cleaned up.

After the old buildings were demolished the ground (76,000 tons of minor polluted and approximately 125,000 tons of heavily polluted soil) was dug out and transported to specialised companies for further treatment. The site measured 100 x 200 meter by 4 meter deep. Some areas were even 8 meters deep. In order not to pollute the groundwater any further a wall of piling sheets was used combined with drains.

The sum insured for section I was NLG 8,500,000.00. The work was insured on a CAR wording with a special endorsement for Third Party Liability.

On a certain day it was noticed that after heavy rainfall the site was fully flooded. After the water was pumped out, and purged in a purification plant, it appeared that the water could enter the pit through an old sewer that was not indicated on the drawings. Because of the incident the site, including the extra polluted soil, had to be cleaned up again, temporary measures were necessary, and additional purification capacity had to be installed. Furthermore the old sewer had to be fully disconnected. The insured filed a claim of NLG 1,300,000.00 for material damages and NLG 200,000.00 for extra costs due to delay of the work. CAR Insurers finally had to pay up to about NLG 800,000.00.

This claim illustrates the risk involved with the reconstruction and cleanup of polluted area's. In recent years the government issued further investigation of the polluted area's in The Netherlands. Depending on the severity of the detected pollution and the further use of the particular ground cleanup is ordered. The coming decade a lot of these works will have to be executed, whereby CAR insurance's will be needed for. Based on the claim just described CAR insurers are warned!

The second claim deals about the insurance of the erection of a new Antimonypentachloride installation. This installation is designed to regenerate the catalyst Antimonypentachloride,  $\text{SbCl}_5$ . The Insured under the EAR policy involved acted as a subcontractor and had to install equipment and machinery as well as the necessary piping. The sum insured by the subcontractor was NLG 763,000.00. The total contract value amounted to NLG 3,300,000.00, for which the Principal took out an EAR Insurance.



At the end of the erection period the installation was commissioned and hydrotested. But before the final take-over previous operation started. Just after a few weeks catalyst spill was detected. This leakage of about 3,500 litres of very toxic and corrosive antimonypentachloride caused severe damage to the new installation. Furthermore the concrete floor and the surrounding soil was polluted. Immediately after the incident measures were taken to prevent further damage. The installation was cleaned and sprayed with a corrosionstop by a specialised company. After inspection damage to the following items was reported:

- steel structures, including steps;
- concrete structures;
- vessels, pumps, actuators and valves;
- coolingcompressor and heatexchanger;
- all insulation, cables and coating;
- pollution of floor and soil.

The Principal issued a total claim of NLG 985,000.00, i.e. NLG 350,000.00 material damage NLG 550,000.00 for loss of profits and NLG 85,000.00 for repair and cleanup of the polluted floor and soil. In the aforementioned amounts removal of debris is included. The polluted concrete had to be treated as chemical waste, to accordingly high costs.

The spillage of the antimonypentachloride was caused due to the failure of two gaskets. Investigations proved that the material used for the gaskets was unfit for purpose. Initially the subcontractor was held responsible for the damage. Further inspection turned out that after the subcontractor had finished his job, whereby the suitable gaskets were used, another (sub) contractor made some alterations to the installation and used wrong gaskets. That firm was not co-insured under the EAR Insurance of the subcontractor. That particular Insurance also contained an endorsement stating that no damage would be indemnified due to Previous Operation. So at the end it all turned out well for the EAR Insurers of the subcontractor.

Based on this second claim it may be concluded that Underwriters have to be careful when insuring the erection of chemical(treatment) plants with regard to risks involved by the testing on stream, previous operation and extended or guarantee maintenance. Compared with the material damage and the loss of profits due to the spillage the environmental pollution was relatively small. When more catalyst was spilled the environmental pollution would have been far more extensive.

### 3. DUTCH SOLUTION ENVIRONMENTAL IMPAIRMENT INSURANCE'S

In February 1994 the Executive Committee of the Non-life Sector of the Dutch Association of Insurers issued a questionnaire regarding the (potential) problems with the insurance of environmental risks. The most important conclusion of that questionnaire were:

- coverage is unclear;
- insureds are not satisfied;
- underwriting capacity is insufficient;
- lack of sufficient expertise;
- lack of current premium calculation models;
- (re)insurers are not satisfied;
- development in legislation and jurisprudence.

Furthermore it is good to mention that the conclusions were more or less applicable to all non-life branches. Liability Insurers face long tail risks and gradual environmental pollution risks. Fire Insurers, but in case of fire of the work also CAR/EAR Insurers, are confronted with enormous claims for removal of debris, including the cleanup-costs for asbestos. Insurers of Transport risks may also encounter large claims in case of pollution, either onshore or offshore.

The outcome of the questionnaire led to the installation of the Project for the Environmental Impairment Insurance's. Unique in this Project is the co-operation of five working committees representing all relevant branches( i.e. Liability, Fire, Transport/ Technical Insurers, Legal Aid and even reinsurers). This Project is managed by a Steering committee that controls and co-ordinates all activities including a so called "Product Creation Team" (PCT).

The first phase of the Project consisted in further research of the results of the questionnaire, a feasibility study, the various underwriting aspects and the development of five drafts. The PCT had to develop proposals for Environmental Impairment Insurance's (EII's) suitable for the needs of the insureds, profitable for insurers, acceptable for reinsurers and manageable by insurers. The first phase resulted in comprehensive EII's covering the risks of outgoing pollution, incoming pollution and self-inflicted pollution. The first phase was satisfactory for all parties involved resulting in the current second phase.

For this second phase a new Steering Committee was formed, controlling a Projectteam, which consists of a Productteam, Business Process-team and a Marketing/Transformation-team. The next missions had to be accomplished:

- create the wordings for five specified EII's, including underwriting guidelines, premium structures and application forms, based on three wordings for stationary risks and two for mobile/non-stationary risks;
- design a business process suitable for the centralised and decentralised handling of all due administration;
- plan for the transformation of the various coverage's of environmental damage in the various wordings into the new EII's, including the necessary marketing.

The original planning of the second phase was based on a combined introduction of the new EII's and a new wording for the Professional Liability Insurance, AVB '96, in the middle of 1996. However a delay occurred due to a fundamental question raised whether the EII's should be based on third party liability or on a first party coverage. Because of the complexity of this issue, think about the existing legal system and jurisprudence, experts are being asked for their opinion. The results may be expected in August or September 1996.

Especially for the environmental pollution risks involved with the insurance of construction and/or erection projects a special wording is developed. Due to the delay just described this wording is not completed and therefore not yet ready for publication. However, the insurance provides coverage for the incoming and self-inflicted pollution of The Work, The Existing Property of The Principal, and Equipment. Coverage for the outgoing pollution is not yet decided upon.

When all new Environmental Impairment Insurance's can be introduced Insurers expect the new environmental pollution risks to be controllable again and thereby insurable again.

#### **4. CONCLUSIONS & RECOMMENDATIONS**

Based on the limited response received the following, tentative, conclusions and recommendations can be made.

Environmental pollution, resulting in damage to the project insured and/or resulting in a third party liability, is insured by most CAR and EAR Insurers associated in IMIA, provided that the pollution is caused by a sudden and unforeseen incident. Third Party Liability is generally considered to be the most important Section of a CAR/EAR insurance concerning the risks of environmental pollution. Removal of debris is insured whereby a loss limit, or a maximum percentage of the sum insured under Section I, is applicable.

Until today no separate insurance exists covering the environmental pollution risks, including the gradual pollution, during the construction and/or erection of a work. In some countries environmental impairment liability insurance's, also covering the gradual pollution (provided it is unforeseen), are available. These insurance's only incept after the construction or erection period.

Since only the consequences of a sudden and unforeseen environmental pollution are covered, in general there is no need for special exclusions of that risk. This might be different in a particular case.

Based on the reported claims environmental pollution is not a current problem for the CAR/EAR Insurers associated in IMIA. However, special attention should be given to the underwriting of testing on stream and maintenance covers.

In a recent publication on Municipal Waste Treatment Plants, The Swiss Re reported that according to a study by the EC the market with the potential for the highest annual growth rates, between now and the year 2000, is the environmental technology sector. The turnover in the EC for this sector in the year 2000 is estimated at 68.6 billion ECU. In 1990 the turnover was 46.9 billion ECU. For the USA a turnover in this sector in 2000 is expected to be about 113 bn ECU versus 78 bn ECU in 1990. The turnover for the rest of the World is estimated at 120 bn ECU in 2000. In that year the Worldwide turnover in environmental technology sectors is estimated at 300 billion ECU.

Investments will be made, and are already made, on environmental protection measures like flue-gas purification, waste water treatment including sludge treatment, solid waste treatment, and chemical waste incinerators. Also the decontamination of large areas is planned or is already at force. All these new investments ask for "State of The Art" technology complying with the latest environmental requirements and regulations, thus resulting in new risks for especially EAR underwriters, including new environmental pollution risks.

Finally, and especially for the European Members of IMIA, the results of the "Study of Civil Liability Systems for Remedying Environmental Damage" will have to be carefully examined in order to see what possible implications on the Section Third Party Liability can be expected. Even if only secondary coverage under this Section is provided, these possible effects will have to be studied in order not to be confronted with the exclusions of the Liability Insurance.