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Managing environmental risks in the energy and natural resources industry

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Introduction

Pollution risk is high in the energy and natural resources industry, from oil and gas extraction to power generation and mining. Leaks, spills, emissions and poor waste management can all cause serious environmental damage and health impacts.

In our recent webinar on 4 October 2023, we looked at the environmental risks faced by the industry and what companies can do to prevent pollution happening.

We also explored:

- The causes and consequences of pollution incidents
- The market appetite for pollution risks in oil and gas, power generation and mining
- What environmental insurance covers compared to general and third-party liability polices
- How insurance can help meet ESG requirements
- Real world case studies of incidents and claims

WTW Speakers

Chris Strong
Environmental Practice Leader

Jo Newson
Broker and Environmental Practice Director

Chris Griffin
Energy Liability Leader

What are the main types of environmental pollution?

Soil pollution: can be caused gradually by leaking pipelines or tanks, or a sudden rupture. Early remediation is essential as soil pollution can leach into groundwater aquifers and rivers over time, and be very difficult and expensive to clean up.

Water pollution: one of the most visible signs of pollution leading to discoloration and harm to plants and wildlife. It can come from direct spills or leaks, polluted wastewater runoff, or leaching from soil, with pollution finding its way into groundwater, rivers and out to sea. Water pollution is a common source of claims in the energy and natural resources sector.

Air pollution: energy businesses create gases, which can be harmful if emitted into the air untreated. If air filtration systems break down, or an accident occurs, this can release toxic plumes that can cause both immediate and longer-term health impacts.

Odor: bad smells caused by industrial processes are becoming more of an issue through statutory nuisance claims. It doesn't have to impact human health, but can just affect quality of life. Although there are no clean-up costs, there is potential for class actions with large legal and compensation costs.

Biodiversity damage: increasingly regulations protect against damage to protected plant and animal species and conservation areas. This can happen without pollution — for example, physical destruction of a rare plant by a wagon driving over it could result in a claim.

Historic pollution: after 250 years of industrialization, there are many contaminated legacy sites. Pollution that has lain dormant on these sites for years can easily be mobilized or exacerbated. For example, digging or pile driving foundations can create a pathway for pollution to enter groundwater or rivers. This is a particular concern for companies buying and redeveloping legacy sites as the liability for these risks is usually passed on in the transaction. Buyers need to do thorough due diligence not only on the risks from current business activities but also to make sure they are aware of any historic pollution risks.

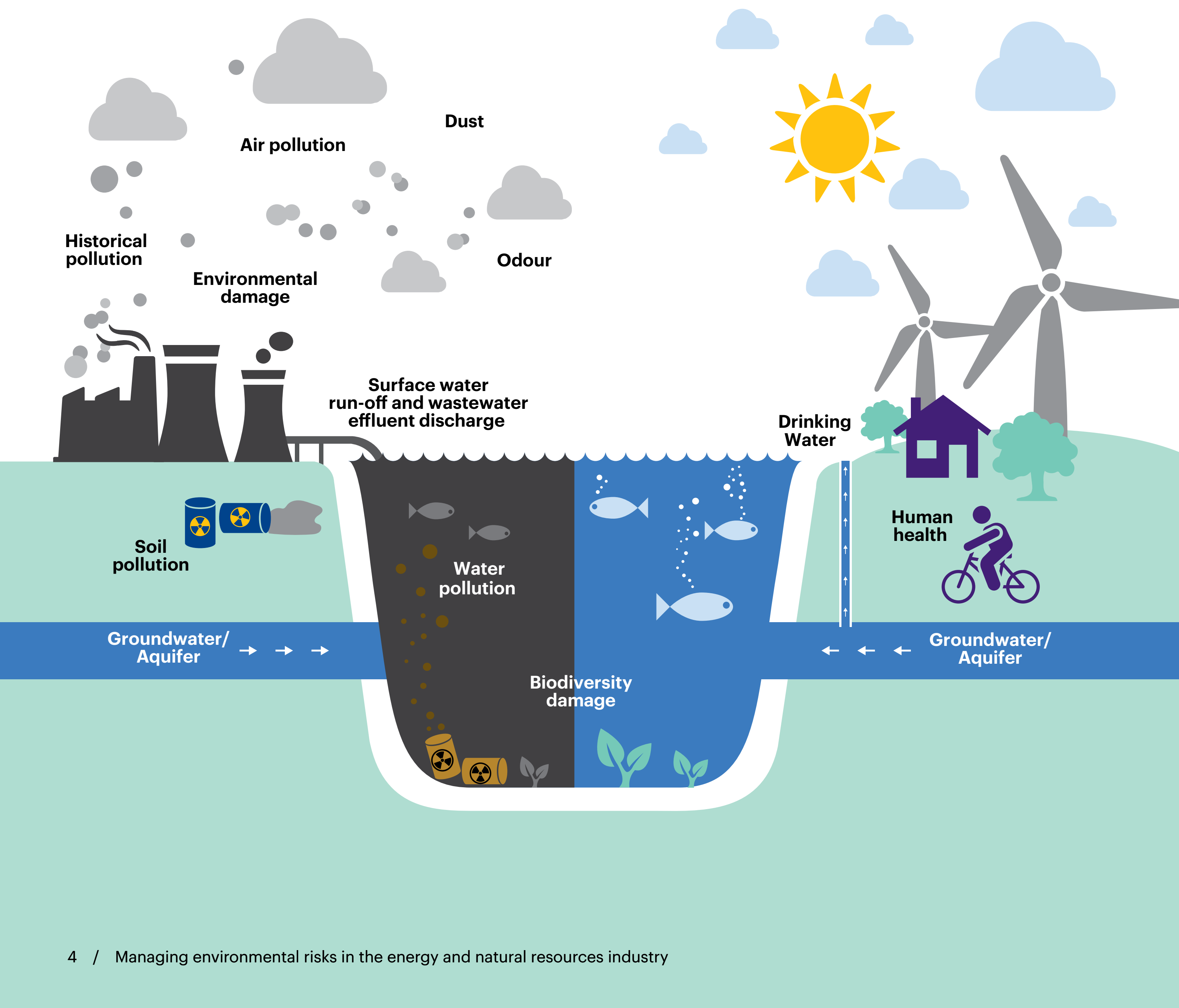
What is an environmental risk?

There are three elements to an environmental risk:

- A **source** of contamination — for example, an oil drum that's leaked.
- A **pathway** for the contamination to move through — for example through soil and into groundwater.
- A **receptor** for the contamination to cause harm — for example, drinking water, fish in a river or people breathing contaminated dust.

It's very important to consider these elements when carrying out environmental assessments for new projects. To prevent environmental damage, businesses need to eliminate one or both of the first two elements. The most obvious way is to eliminate the source of contamination, but it's also possible to remove the pathway through some form of physical engineering.

Figure 1: **Source – Pathway – Receptor**



Mitigating and minimizing environmental risks

Energy and natural resources businesses have a responsibility to put systems and controls in place to manage their environmental risks. These should include:

- **A waste management plan**, including wastewater, effluent, solid waste and air emissions.
- **An environmental management plan** to identify how business operations could impact the environment and to put measures in place to mitigate those impacts. This should be a standardized system applied equally at all global sites, with documented procedures for each risk.
- **An environmental impact assessment** before any new development project to measure the potential risk to the surrounding area and how it can be managed.
- **Long-term groundwater monitoring** if there are known groundwater issues on a site.
- **Environmental management permits:** good management of environmental permits will help organizations stay within regulations and improve their risk profile over time, for example by reviewing and improving the technology used and making sure issues are dealt with quickly

However, even with the best environmental risk management controls, no business can remove their risks entirely, and incidents may still happen.

Environmental impairment liability (EIL) cover

Filling the gaps in general liability and property policies

Environmental impairment liability (EIL) insurance is designed to fill the gaps other insurance policies don't cover. As legislation tightens, these gaps are only going to get bigger.

- Property and general liability policies typically only cover pollution caused by sudden and accidental damage, except in the U.S. where they need to be notified within days. This means there is usually no cover for slow and gradual pollution building over time.
- These policies are only triggered when there is third party damage. First party costs are not covered.

What does EIL cover?

EIL can cover both sudden and accidental pollution, such as oil spills, and gradual pollution caused by historic contamination. It can also cover air pollution, including the impact of historic emissions, which is becoming a big issue in the energy and natural resources sector.

- **First and third party clean-up costs** covering your site and any surrounding properties.
- **Third party liability** for environmental damage to property and bodily injury.
- **Pre-incident loss mitigation:** to prevent an immediate risk of environmental damage caused by pollution. For example, if a fire at a site leads to a risk that firewater runoff will get into a river, the policy will pay to pump the water out safely before any damage is caused.
- **Site investigation:** covers investigations by consultants and engineers to assess the nature and extent of pollution, how far it goes and how to remediate it.
- **Soil and groundwater remediation:** on your site and the surrounding area as needed.
- **Crisis management response:** a key concern for most clients is the reputational damage that a pollution incident can cause. Crisis management response provides clients with access to crisis and PR consultants who will manage messaging to media and stakeholders as soon as an incident occurs.
- **Statutory clean-up costs** if an environmental agency carries out work on a client's behalf and sends them the bill.
- **Biodiversity restoration:** covers the cost of restoring biodiversity lost through pollution. Alternatively, EIL can pay to carry out environmental restoration works somewhere else to make up for the damage caused.
- **Legal defense costs** if a client is prosecuted.
- **Directors and Officers liability** for environmental breaches.
- **Long-term ground water monitoring:** for up to 15 years after the incident.

Where cover provided by EIL is also included in a general liability or property policy, those policies will be used first and EIL will cover the excess costs and risks not covered by them.

Figure 2: **Gaps in cover on traditional insurance wordings***

	Third-party liability	Property	Environmental
Sudden and accidental pollution	✔	✘	✔
Gradual pollution	✘	✘	✔
Statutory clean-up	✘	✘	✔
On-site first party clean-up	✘	✘	✔
Historical pollution	✘	✘	✔
Biodiversity damage	✘	✘	✔
Loss mitigation	✘	✘	✔

*Please note: Policies will vary depending on individual clients and market conditions at the time of placement

The main types of EIL cover

Premises pollution liability (PPL)

- Provides cover for a client's owned locations or assets listed in a schedule. It can be written to specific sites or cover the entire business.
- PPL is always on a claims made basis. Policies can cover periods of up to 10 years for historic risks and up to three years for new pollution risks.
- Policies can include options such as transportation and business interruption.
- On new pollution, more policies now have first party discovery trigger, which means they respond once you become aware of the pollution without waiting for a third party claim or order from the regulator.

Contractors pollution liability (CPL)

- Covers work by contractors for example on energy infrastructure projects. In the energy sector, this is typically work on oil rigs, gas rigs, or mining sites.
- CPL can be structured as an owner-controlled insurance program (OCIP) to include all contractors on site.
- Policies can be written for the length of the project.
- For one-off projects, cover can be written on an occurrence basis. For annual operations, it's generally on claims made basis.

Common misconceptions

'It's too expensive'

There is more competition in the market today, which means cover is increasingly well-priced, especially on a per location basis.

'We're not so exposed'

Most businesses in the energy and natural resources sector will have some environmental exposures, whether from the nature of their operations or how they manage waste. These exposures can be extensive, from third party damages to clean up and legal costs.

'It required too much information'

It's true that detailed information is required for historic pollution, but most of it will already be available from existing sources. WTW can usually provide a rough indication of premium based on the company's casualty insurance submission.

'We don't need it to comply with regulations'

Generally it's safe to assume that regulations will get tougher and businesses will need to do more to demonstrate compliance.

What's the risk appetite?

The EIL market has a wide appetite for risks in all areas of energy extraction, generation and distribution. But some risks are difficult or impossible to insure. The table shows the kinds of risk the market has appetite for and those that there is minimal to no appetite for whatsoever.

Figure 3: **Cover available**

Sector	✔ Yes	✖ No
Oil and gas Most onshore and offshore risks are within appetite, from refineries and oil storage terminals to exploration companies.	• Onshore junior and intermediate oil and gas producers • Offshore exploration and production companies • Offshore maintenance contractors • Oil and gas storage facilities • Midstream and downstream processing and refining facilities • Retail petrol and gas station portfolios • Specialist oil and gas facilities in Canada and Mexico	• Major pipelines crossing several countries • Contractors working in pipeline construction, testing and maintenance • Legacy risks such as old and abandoned wells
Power The market has an appetite for most power generation risks, except coal. WTW is seeing growing demand for EIL in renewable energy and waste to energy projects.	• Power generation • Biomass and waste to energy generation • Electricity transmission and distribution, including interconnectors • Gas transmission and distribution	• Coal-fired power generation, unless offset by renewables or in transition to cleaner energy
Mining Mining carries significant pollution risks, from acid mine drainage to poorly stored tailings. Cover for tailing storage facilities is difficult to get as they can cause severe environmental and biodiversity damage with large clean-up costs.	• Mining for metals and non-metals • Underground and open cast mines • Dissolution mines, such as potash and uranium • Tailings management facilities (TMFs) that meet international standards, such as ICOLD, CDA, ANCOLD, with robust management information, including peer review reports, and access for engineering consultants	• Coal mining and associated infrastructure • Processing mining waste in TMFs in areas of high seismic activity • TMFs located upstream of the main mining sites • Older TMFs

The market for EIL

Environmental insurance was first sold more than 20 years ago. Demand has been growing ever since, driven by publicity around major accidents, increasing legislative and regulatory controls, public pressure and concern over reputational damage.

The market is now well established, especially in the U.S. and Europe, with over 60 insurers offering capacity of between $25-50 million.

$100 Million
UK EIL Market size

$200 Million
EU EIL Market Size

>60
Primary retail insurers offering a range of EIL covers globally

WTW
We have a large global specialist EIL broking team

$25m to $50m
Average capacity per loss and in the aggregate from each insurer

CPL
>10 years for one-off projects
Annual cover available
Claims Made and Occurrence

PPL
1 to 3 years for Operational Risk
5 to 10 years for Historical Risk
Claims Made Only

XoL
Large capacity programs now the norm

Bespoke Wordings
Specially designed coverage terms can be manuscripted to address contract or transaction specific risks

$10k CPL | $25k PPL
Minimum deductibles

*Market sizes are estimates and vary from year to year

How does EIL help meet ESG challenges?

EIL can play a critical part in ESG strategies, helping companies address and manage both their immediate and long-term environmental impacts.

- **Addressing climate risks:** EIL policies can cover climate risks, such as the long term impact of air emissions, which are increasingly being excluded from traditional general liability policies. For example, the Joint Liability Committee wording JL 2022 has a climate change exclusion as standard, partly in response to recent class action litigation against companies whose air emissions have contributed to climate change. The new form also includes standard exclusion for PFAS chemicals (see box below).
- **Biodiversity:** EIL covers biodiversity damage, which is also routinely excluded from general liability policies. Regulations relating to biodiversity loss are developing quickly. For example, new Task Force on Nature-Related Financial Disclosures (TNFD) standards require businesses to be more transparent about their impacts on biodiversity and how biodiversity risks could impact their business.
- **Reporting requirements:** EIL can help companies meet requirements to understand and report on both the environmental risks they face, and the risks they pose to the environment.
- **ESG risk management:** EIL can help to demonstrate how well ESG exposures are being managed and give stakeholders confidence that the company has the tools to respond to environmental damage quickly and effectively.

PFAS exclusions

Polyfluoroalkyl Substances (PFAS) are synthetic chemicals used in non-stick, water repellent and heat- and stain-resistant products, which have been widely used in the energy sector.

They may be harmful due to the fact that they never break down. They can accumulate in the body if ingested and remain in the environment forever. Claims and class actions have been growing, especially related to PFAS contamination of groundwater. Most traditional policies now have blanket PFAS exclusions but it's still possible to get cover for sudden and accidental damage in an EIL policy.

Why are clients buying EIL?

There is a growing list of reasons why more businesses are buying environmental policies.

- **Contract obligations:** banks and funders increasingly require environmental cover before they sign off on projects. More landlords are also requiring it of their business tenants.
- **Balance sheet protection:** liabilities can be transferred off the balance sheet through a tailored EIL insurance policy.
- **Protection against claims and regulatory action:** including statutory clean-up.
- **Emergency response:** policies offer access to 24/7 technical expertise when an incident occurs.
- **Reputational damage:** more and more businesses are concerned about adverse publicity and reputation damage as environmental issues move further up the corporate agenda.
- **Legal costs:** environmental damage claims can be complex and can lead to long and expensive legal action.

Claims examples

PPL

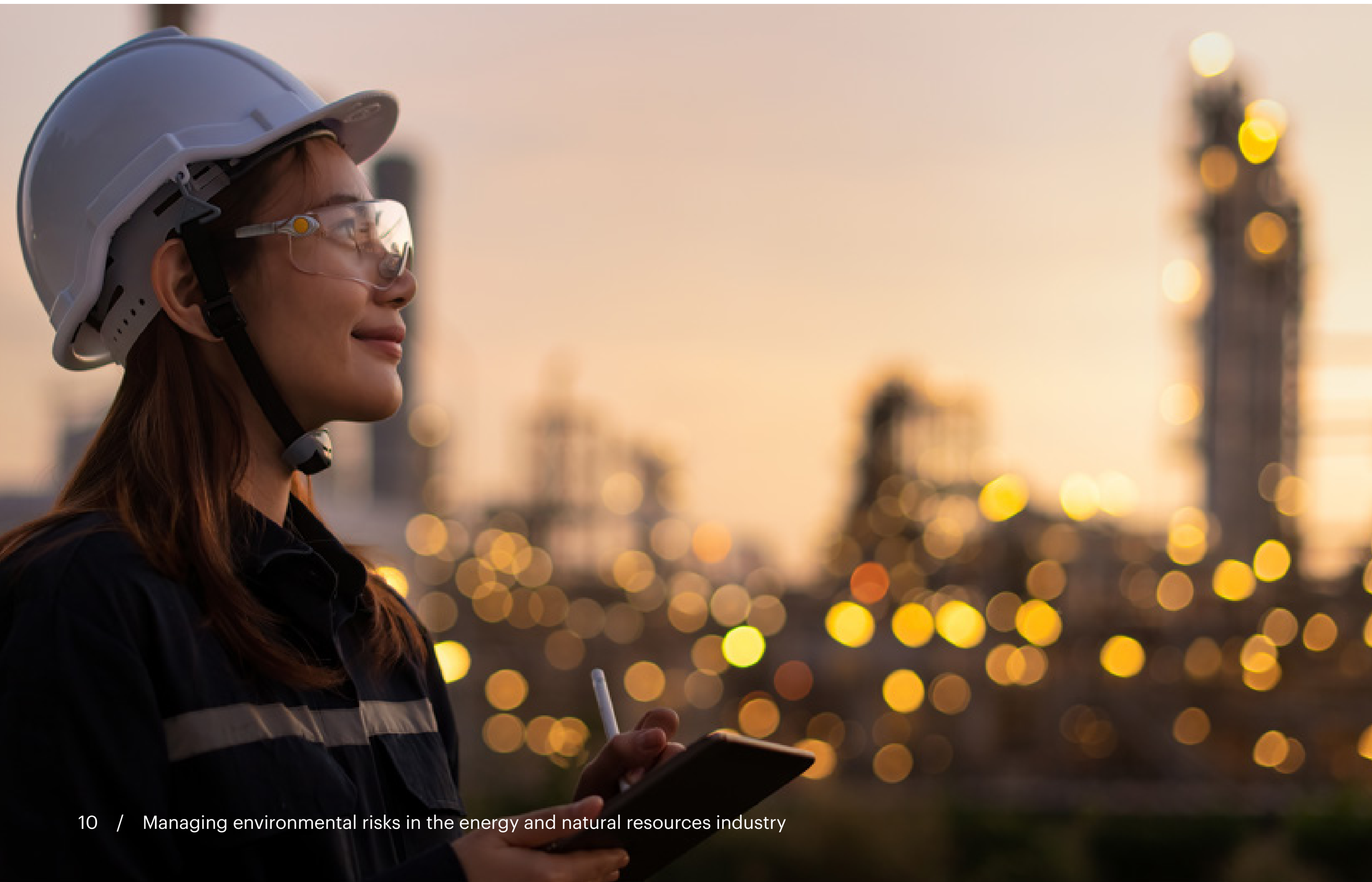
Oil refinery, Israel

Local residents have brought a class action against an oil refinery located in a built-up area. They claim that historic air emissions have led to poor health and an increase in cancer cases over a long period. During the protracted legal process, the company has had to pay more than $500,000 in pre-court legal costs, which are covered under its EIL policy. The potential compensation payments could run into many millions.

CPL

Pipeline construction

During testing, 30,000 gallons of testing fluid leaked due to an error by a sub-contractor to the contractor responsible for building a pipeline. The contractor was able to claim on their CPL policy as it covered them for damage caused by any sub-contractor working on the project. Total costs and damages came to more than $3 million.



Underwriting requirements

Underwriters don't normally require a great deal of detailed information to give an initial rough indication of premium and limits.

The exception is where there may be historic pollution as they will need to know what's happened over time.

Even in these cases, most of the information will already be required by the authorities for planning purposes or by environmental agencies. For PPL operational cover, a lot of the information will be in the client's casualty presentation. For CPL, the details may already be included in contracts with owners and lenders.

Figure 4: **Underwriting requirements**

PPL **Transactional Cover (Historical)**	PPL **Operational Cover (New Conditions)**	CPL **Project and Annual Cover**
Site Location Schedule	Site Location Schedule	Contract turnover breakdown
Environmental Reports	Permits	Length of construction period
Planned future land use	Spill Response Plan	Method Statements
Regulatory Correspondence	Fuel/Chemical Storage	Lenders Requirements
S&P Agreements/Contracts	Waste Management	Environmental Reports
Due Diligence Procedure	Compliance History	Construction Environmental Management Plans
	Environmental Audit Reports	Remediation Strategies
	Loss History	Loss History

Summary of main points

- Many energy and natural resources business have high pollution risks, not just from leaks and spills but also air emissions and waste management.
- Many of these exposures are not covered by property or general liability policies, leaving large gaps in cover.
- The gaps are only going to get larger as regulations tighten and insurers increasingly withdraw pollution cover.
- EIL can cover these gaps and also help companies respond to incidents quickly to reduce potential reputational damage and long-term clean-up costs.
- It can also help transfer liabilities off balance sheet and demonstrate effective management of ESG risks.
- Cover is available for historic pollution and new pollution and for individual sites, multi-site, or across whole companies.
- Rough estimates of premium can be provided based on information that's readily available.

Contact details

For more information, please contact:

Asia

Ben MacCarthy
Head of Casualty, Asia
+852 2195 5885
benjamin.maccarthy@wtwco.com

Nicki Tilney
Head of Construction, Power and Renewables, Asia
nicki.tilney@wtwco.com

Latin America

Juan Francisco Aguirre Leiva
Casualty Regional Product Leader
+1 305-373-9617
francisco.aguirreleiva@wtwco.com

Maria Sol Batalle
Natural Resources Leader, Latin America
sol.batalle@wtwco.com

GB

Chris Strong
Environmental Practice Leader
+44 7730 584 943
christopher.strong@wtwco.com

Chris Griffin
Energy Liability Leader
chris.griffin@wtwco.com

Jo Newson
Broker — Director
+44 203 124 8317
jo.newson@wtwco.com

Graham Knight
Global Head of Natural Resources
graham.knight@wtwco.com

Ahmed Abdel Gawad
Head of Natural Resources, CEEMA
ahmed.abdelgawad@wtwco.com

Australasia

Matthew Frost
Head of Natural Resources, Australasia
matthew.frost@wtwco.com

North America

Brian McBride
Head of Environmental Broking
+1 404-224-5126
brian.mcbride@wtwco.com

William Helander
Head of Natural Resources,North America
william.helander@wtwco.com

Netherlands

Jan Jaap Biemont
Executive Director Liability & Financial Lines
+31 88 543 3933
janjaap.biemond@wtwco.com

Norway

Nanna Unhammer
Senior Liability Broker
+47 23 29 60 75
nanna.unhammer@wtwco.com

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