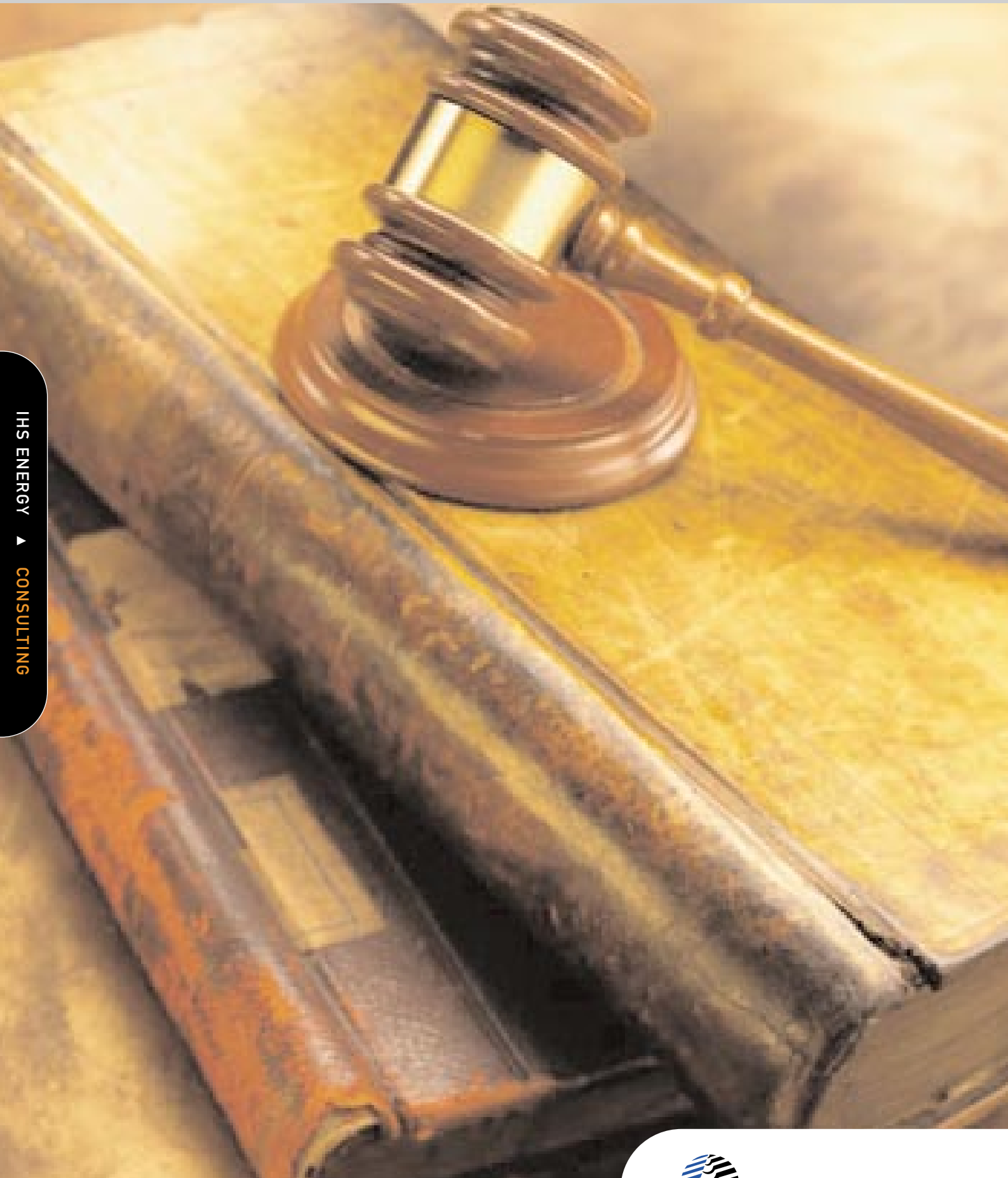


Regulatory Compliance Services

Point of View



IHS ENERGY ▲ CONSULTING

Building an effective risk management strategy for a diverse global market



IHS ENERGYTM
ANYWHERE YOU GO, THE POWER TO KNOW.TM



In order to deliver the best return on what is going to be a large investment, companies need to make sure that they understand the local regulations.

Dealing with new realities

Industry risk is increasing

The level of risk in the oil and gas industry is rising year on year. Much attention is focused on the more visible risk factors, such as smaller average field size and the need to operate in more “difficult” territories, measured on the grounds of physical remoteness, geological challenges and political sensitivity.

Less attention has traditionally been devoted to the increasingly harsh penalties for non-compliance with often very complex and sometimes less than transparent regulatory regimes encountered in different parts of the global marketplace. There are real dangers to be faced by:

- NOCs starting to develop a new international role, and having to deal with other countries’ regulations for the first time.
- IOCs beginning operations in territories that have never dealt with major international companies before.
- All companies that are coming to terms with changing attitudes and correspondingly much tougher regulations in environmental, health and safety or social and economic matters.

The market is changing faster than for many decades. The challenge of compliance is increasingly high on the agendas of every company and every business leader.

A complex market

As the drive to increase reserves reaches new levels of intensity, so new territories and new players are being brought into the picture. Companies and governments, alike, find themselves on a steep learning curve as they try to understand how to trade successfully in this fast-changing environment. Regulatory compliance is a key factor in defining and managing the new rules of engagement for the market.

The former Soviet republics possess the second largest known oil and gas reserves in the world. Massive new projects are now underway in Russia and Kazakhstan, representing vast levels of investment - and risk. Unfortunately, the legal compliance requirements in Russia are among the most complex in the world. Not only are there around 2500 relevant legal documents today, an average of 10 to 15 new legal documents of direct relevance to the oil and gas industry are adopted every week



All national governments establish their own particular regulatory regimes to manage operations within their own territories. In order to deliver the best return on what is going to be a large investment, companies need to make sure that they understand the local regulations, that they are able to work with them without friction and avoid either wasting time and money, or compromising their business reputation by non-compliance.

A more hostile regulatory environment

We also need to be aware of how market trends are increasing the risks of non-compliance on a continuous basis. In the post-Enron environment, the need for greater transparency and more clearly defined accountability has grown considerably. The Sarbanes-Oxley law places responsibility firmly on the business leaders of each company to find out about relevant legislation and comply fully, with little excuse left for failure to do so.

Regulatory failure has always been recognized as a potential operational risk but more is at stake, these days.

Why Regulatory Risk is Increasing

Business Trends

Accountability
Transparency
Responsibility
Control
Disclosure

Regulatory Trends

Increasing regulation
Tougher enforcement policies
Increasingly punitive sanctions
Increasing corporate and personal liability

Regulatory risk is a core business issue in an increasingly hostile regulatory environment



Dealing with new realities

Regulatory failure has always been recognized as a potential operational risk but more is at stake, these days. Damage to reputation, potential claims for compensation and even the real possibility of criminal action against a company and its individual employees: these are all very much on the agenda today.

Yet compliance is by no means a straightforward matter, especially where early operations in a new territory are concerned. The potential pitfalls are many and various:

- *Obtaining permits from authorities* - making sure these are fully up to date and that detailed requirements are

complied with at all times. In some territories, this will mean dealing with a hierarchy of authorities, from national government to regulatory body to regional governments to local authorities. Each may have its own system of regulation, with requirements that may not be perfectly aligned (and in some cases are contradictory). It is the duty of the company operating in any territory to make sense of such a situation; to understand all permits needed and carry out the negotiations necessary to ensure effective operations to the satisfaction both of their own shareholders and all competent authorities in the host country.

Failure to observe environmental regulations in all particulars cost one oil company a \$9 million fine from the Brazilian government.

Business Impact of Failings in Compliance Management

Operational	Corporate/Personal
<p>Project disruption and delay</p> <p>Financial losses</p> <p>Managerial disruption</p> <p>Worsened relationships with regulators</p>	<p>Damage to corporate reputation</p> <p>Corporate criminal liability and penalties</p> <p>Personal criminal liability and penalties</p> <p>Adverse competitive effects</p> <p>Compensation claims</p>

Regulatory risk can materially affect your people, your business and your reputation



- *Environmental issues* - health and safety regulations are generally becoming both tighter and more strictly enforced in most host countries where exploration is currently taking place. Once more, regulations on both these issues differ significantly from territory to territory and it is essential to have a clear understanding of expectations and duties from the outset.

These issues represent only the most obvious concerns for companies deciding where they wish to invest and which territories will offer them the best prospect of an acceptable return on their risk capital. Other considerations that need to be understood, calculated and carefully reviewed are:

- Tax and Fiscal regimes.
- Relevant regulations, fully understood and taken into account.
- Import - Export rules.
- Legislation concerning local participation in new projects, both in terms of employment and equipment supply.

Assessing all the risks

Companies seeking out the most promising areas for new exploration must understand all of these issues and factor them into their risk evaluation if they are to make the best possible decisions. The alternative is to approach new projects only partially informed about all possible risks, with the prospect of serious problems ahead. The possibility of incurring fines is only one aspect of the calculation. The prospect of serious delay or even the need to abort projects after they have started could prove more costly still.

In Brazil, a group of international companies lost \$300 million because their permits to explore in a particular area expired before effective operations could begin. In Russia, one major company was obliged to pay additional taxes and fines to the value of \$48.5 million after failing to obtain all necessary permits for operations that had already begun. Failure to observe environmental regulations in all particulars cost one oil company a \$9 million fine from the Brazilian government, while a technical breach of health and safety rules in Australia led to a \$1.9 million fine for another company.

Securing the necessary permissions for some kind of work can take a great deal of time.





A new kind of approach is needed to provide the reliable, expert partnership needed by major oil and gas companies.

The role of a global specialist

IHS Energy believes that managing compliance issues is not a matter that can be undertaken on an ad hoc basis. It is a growing risk factor for even the largest of IOCs and NOCs, and managing compliance requires specialist skills, deep experience and expertise.

Securing the necessary permissions for some kinds of work can take a great deal of time. For off shore dredging in Russia, to use just one example, it is not uncommon to wait 18 months to receive permission to commence work. If the client concerned does not start the process of application fast enough, the result can be that a “window of opportunity” closes while they wait for their permit.

In Alaska, one major IOC lost \$5 million spent on building ice roads that had to be abandoned unused because environmental concerns caused such delays that the roads melted! In Costa Rica, another company lost \$8 million because it failed to secure an environmental permit, and had to stop work without any chance of return on investment.

Current, accurate local knowledge

All companies engaged in any form of exploration and development activity need to have the best possible intelligence about regulations and compliance issues available before they commit to any significant investment. No company is so well established or so rich in internal resources that it can afford to operate without high quality specialist help.

So where can companies undertaking major exploration and development projects look for authoritative, highly experienced specialist support on regulatory and compliance issues? Given the extreme sensitivity of the issues involved it is perhaps surprising to realize how few options truly exist. At the moment, most companies have little choice but to establish their own, ad hoc arrangements with local law firms. In many cases these arrangements work well but there will always be some concerns about this kind of approach.

In particular...

- Law firms do not generally have in-depth operational experience. They may not be able to pick up



on the full implications of specific regulations or legislation as they impact on the logistics and financial basis for exploration and development.

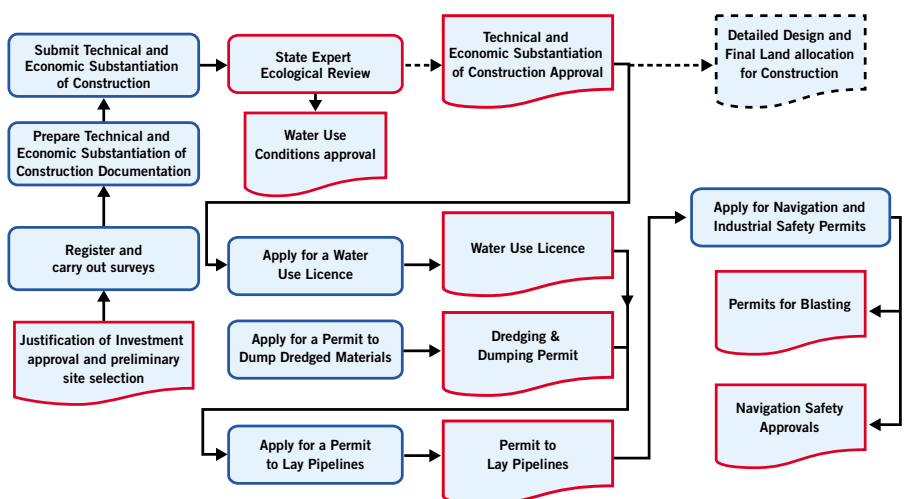
- Most law firms are, of their nature, local. This may give them an excellent in-depth understanding of conditions in a specific territory but will not enable them to help clients make reasoned and accurate risk-benefit analyses of opportunities by comparing them to others on a global basis.

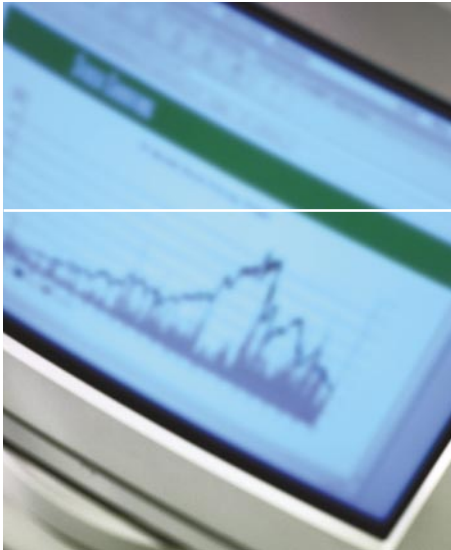
- Finally, legal specialists tend to be restricted in the scope of what they do. In order to improve client performance on a permanent basis, it is necessary to design reliable, reusable systems for managing compliance. This is outside the competence of most mainstream law firms.

A new kind of approach is needed to provide the reliable, expert partnership needed by major oil and gas companies in this increasingly complex and hostile business environment.

An Example of Regulatory Compliance Requirements

Overview of Permitting Processes Related to Water Use Licences, Offshore Dredging and Dumping of Dredged Materials





The IHS Energy approach

Compliance with a complex and constantly changing set of regulations is not a simple matter, requiring rigorous systems and processes to ensure the right results.

The role of IHS Energy Regulatory Compliance Services

IHS Energy Regulatory Compliance Services provides the complete answer to most key compliance issues on a global basis.

IHS Energy works regularly with governments and national oil associations in order to help them formulate regulatory regimes, developed with a clear knowledge of industry best practice and likely implications of all new proposals.

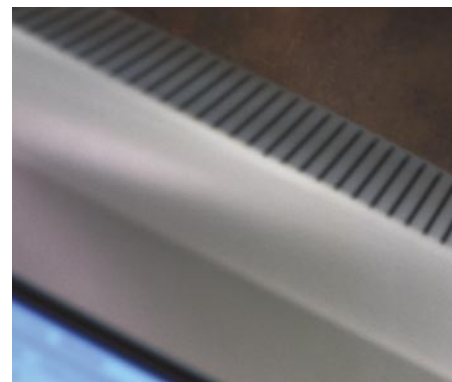
- A Middle East country worked with IHS Energy on modernizing its regulatory, fiscal and compliance regime for upstream oil and gas projects, together with restructuring of the regulatory authority.
- A national oil association contracted IHS Energy to provide expert consultancy to help them understand the impact of a proposed hydrocarbons bill, enabling them to make targeted recommendations for improvement to the national legislature concerned.
- A US based super major oil company has worked with IHS Energy over a number of years to set up and manage a comprehensive database of regulations that relate to ongoing exploration activities in some of

the newest and most sensitive operational areas. These include West Africa, Brazil and Russia.

The IHS Energy approach is based on:

Global coverage and local delivery: since 1994, IHS Energy has provided regulatory services to the world oil and gas industry, and to host governments, in over 70 different jurisdictions. Our legal and regulatory knowledge is based on close working relationships with local partners, supported by industry expertise from our own regional and national offices. IHS Energy's operational network reaches virtually every one of the world's 200 countries and is backed by expert knowledge of 40 different languages. Apart from this, IHS Energy has especially in-depth operational knowledge covering many of the most important but sensitive areas of oil exploration and development today. These include Russia, Angola, Brazil, Italy, Algeria, Nigeria, Chad, Cameroon and Congo, together with the relevant aspects of international law.

Industry knowledge: IHS Energy is acknowledged to be one of the world's leading information providers on all aspects of the world hydrocarbon industry. Using our own, industry-leading software tools, we are able to provide authoritative analysis of trends, complex data and other issues that related to risk-sensitive decisions.



Applied business insight: each consultant within the regulatory compliance practice is an experienced industry practitioner with a real-world understanding of working to tight deadlines in an increasingly complex regulatory environment.

The IHS Energy approach is focused around three main service offers, all of which are based on defining and reusing best practice solutions for the benefit of all its clients. The three offers are:

- *Audit* - determining current status, identifying and evaluating potential risks and liabilities, assessing management practices and managing risk.
- *Compliance* - evaluating the regulatory environment, understanding operation impact, engaging in the regulatory process and managing compliance.
- *Special projects* - this could include carrying out multi-jurisdictional analysis, assessing the impact of new legislation and helping to reform the regulatory scheme.

In this way, our services cover the ground from first appraisal to ongoing risk management, acting as trusted adviser right through to management partner on the ground, depending on the client's preference and available resources.

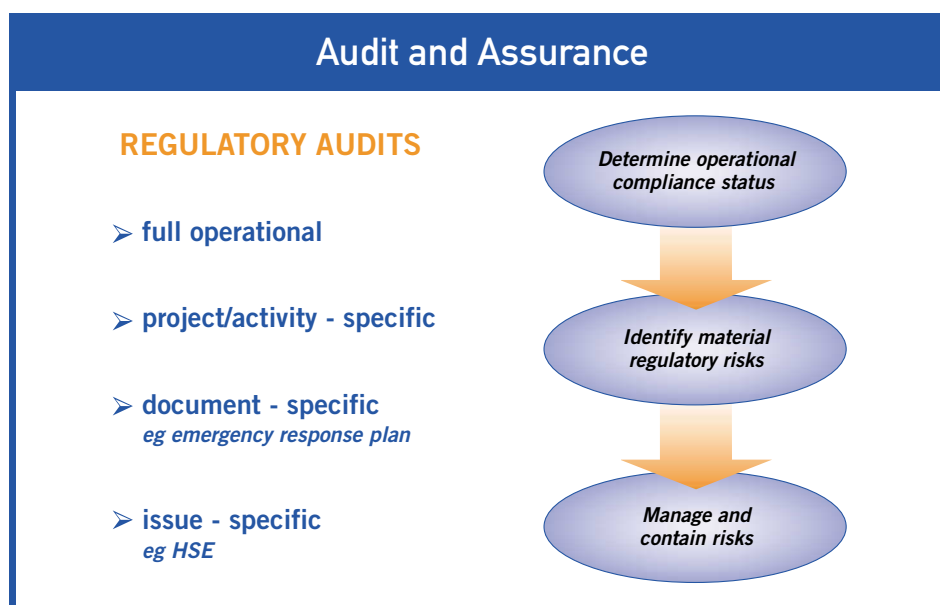
Audit services

IHS Energy's audit services are based on a pragmatic working method that is designed to deliver useable solutions quickly and in partnership with the client.

Compliance services

Compliance with a complex and constantly changing set of regulations is not a simple matter, requiring rigorous systems and processes to ensure the right results. The IHS Energy approach is based on deep experience and best practice methods. Use of our Compliance Management System (CMS) database and related software tools enables us to embed compliance

The regulatory climate throughout the world is becoming tougher by the year, and this trend is set to continue.



IHS Energy approach



as a normal part of everyday operational management, rather than as a troublesome, separate problem. This approach gives clients the best possible chance of meeting their obligations while maintaining the integrity of their operations.

Compliance management techniques can make a significant contribution to operational efficiency. One project carried out by IHS Energy on behalf of a major international client not only helped them to secure their position against possible problems from non-compliance, it also saved an estimated \$8-10 million in direct costs.

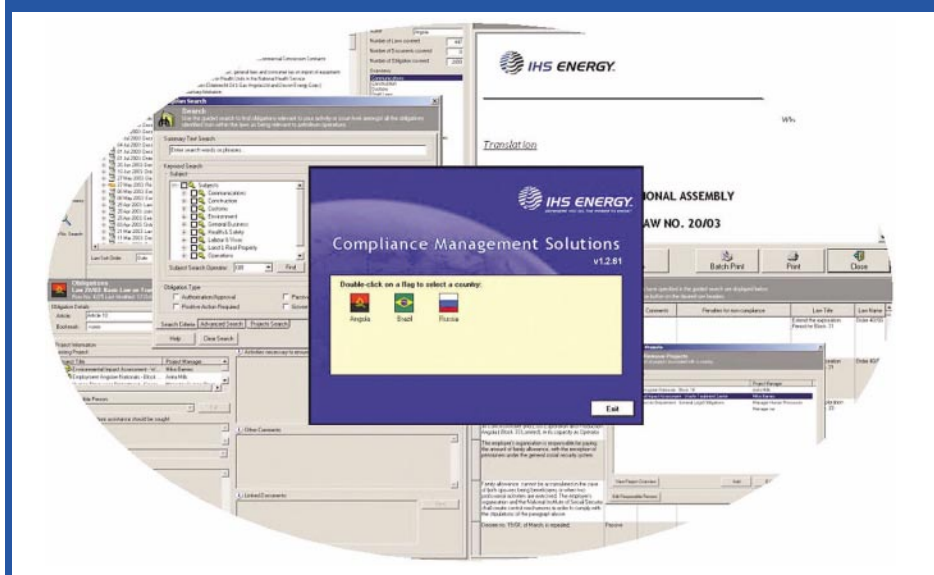
Special projects

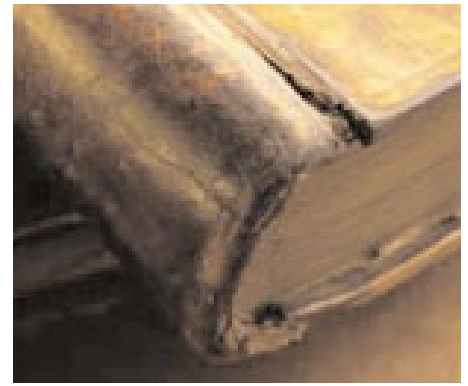
Our consultancy skills can be used to deliver custom-built solutions for a very wide range of compliance needs, and over the past decade, there are many examples of individual projects in which the combination of local contacts, industry experience and advanced business intelligence and analysis tools have been brought together to solve complex needs. Some examples are:

- Multi-jurisdictional comparative analysis of environmental terms and requirements to support a large international company in negotiations with a host government.
- Global gas utilization study for a major international organization, covering extent of flaring and venting, measurable results, alternative uses and how these are affected by current regulations.
- Comparative analysis of global operational discharge controls and enforcement practices on behalf of a European government, to set before an expert meeting.

In all cases, the aim has been to use a range of best practice skills and resources to target often highly specific concerns and requirements in order to deliver usable intelligence, recommendations and working practices to clients of every kind.

IHS Energy's Compliance Management System





What next?

IHS Energy's view is that to implement an effective compliance strategy and corporate governance model, it is important to focus on a number of key priorities:

- Understand the regulatory regime in the context of the proposed investment.
- Establish ownership for, and maintenance of, an asset-focused compliance management system.
- Embed the compliance system in the overall work process and ensure traceability through assigning responsibility for compliance to specific, named individuals.
- Evaluate operational compliance periodically throughout an investment's lifecycle.
- Establish vertical reporting so that corporate management is fully aware of each investment's compliance status and can manage shareholder expectations accordingly.

The regulatory climate throughout the world is becoming tougher by the year, and this trend is set to continue. Compliance is now a key strategic issue for all companies within the global oil and gas industry, while it is

certainly a matter of growing concern to host governments, as well. The stakes are high and the risks of failure in compliance management can include major financial penalties, serious damage to reputation and even the possibility of criminal charges.

To avoid these problems, it makes increasing sense to seek out solutions that are rooted in deep industry knowledge, bring a truly global perspective and in which regulatory concerns are always linked to operational imperatives as a matter of course.

IHS Energy is unique in having the combination of global reach, constantly refreshed and up to date intelligence in key territories, supported by hands-on operational understanding. This combination ensures that IHS Energy is well positioned to partner with clients to enable them to build an integrated and sustainable compliance management strategy for today's diverse and complex markets.

About IHS Energy Consulting Services

IHS Energy's worldwide consulting organization provides best-in-class decision-making support throughout our clients' E&P processes - including new venture assessment, asset management, portfolio management and petroleum data management. Our consulting solutions increase efficiencies and operational successes and guide strategic business decisions to identify and maximize the value of investment opportunity. We assist clients with specific analysis projects covering economics, political risk, reserve estimation and understanding the comparative advantages of relative global basins and plays. Our consulting team offers education and workflow benchmark analysis, as well as on-site and project-based expertise.

For further information about Consulting Solutions from IHS Energy, please contact one of our consultants at:

Europe, Middle East, Africa and Asia Pacific Head Office - Epsom
+44 (0)1372.745959

Americas Head Office - Houston
+1.713.840.8282

Canada

Tel: +1.403.770.4646

Fax: +1.403.770.4647

China

Tel: +86.10.8499.0168

Fax: +86.10.8499.0167

Singapore

Tel: +65.6225.4166

Fax: +65.6225.9694

Switzerland

Tel: +41.22.721.1717

Fax: +41.22.721.1919

United Kingdom

Aberdeen

Tel: +44 (0) 1224.619.246

Fax: +44 (0) 1224.626.227

Epsom

Tel: +44 (0) 1372.745959

Fax: +44 (0) 1372.727091

Tetbury

Tel: +44 (0) 1666.501200

Fax: +44 (0) 1666.504704

United States

Dallas

Tel: +1.972.783.8002

Fax: +1.972.783.0058

Englewood

Tel: +1.303.736.3000

Fax: +1.303.736.3150

Houston

Tel: +1.713.840.8282

Fax: +1.713.599.9111

Midland

Tel: +1.432.682.2343

Fax: +1.432.683.5817

Oklahoma City

Tel: +1.405.232.2722

Fax: +1.405.231.2502



www.ihsenergy.com

© Copyright 2003, IHS Energy and its affiliated and subsidiary companies, all rights reserved. All trademarks belong to IHS Energy and its affiliated and subsidiary companies, all rights reserved. E301.0103.5000