

## CHALLENGING THE ‘SHE’ CULTURE IN THE RUSSIAN FEDERATION

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There is a gulf between the mature safety, health and environmental (SHE) culture of ‘Western’ companies and their Russian partner companies in the oil and gas sector. Comprehensive and highly prescriptive SHE regulations exist and many of these mirror western standards but they have been developed without consultation with the industries that they regulate. The corporate response, at least amongst the older generation of management, is to either merely comply with or pay lip-service to the law as cheaply as possible. In many cases, they pay the fines for non-compliance. SHE measures are seen as a cost to the business, rather than as an investment to achieve better performance and higher profitability. There is a ‘blame culture’ that inhibits managers taking any personal responsibility for SHE issues. Accident investigations generally seek to lay the blame on the unfortunate victim, rather than to discover the root-causes and prevent recurrence. Internal shareholder and public pressure for better performance has been, and still is, lacking.

This paper gives an anecdotal account of the differing approaches to SHE in the oil and gas industries in the UK and Russian Federation (RF). Accident statistics are compared and cultural differences described. The approach to SHE regulation is examined. Some suggestions for constructive change are made that might help the emerging generation of native young engineers and managers, who are well-trained and cognizant of the need for better SHE performance.

### INTRODUCTION

Emerging economic powers, such as Russia, are striving to develop their oil and gas resources. Much of this development is in collaboration with ‘Western’ companies through joint ventures or partnerships. One of the bigger challenges faced by the western partner has been to reconcile the gulf between its inherent and mature Safety, Health and Environmental (SHE) culture and adherence to good SHE practices and those of its Russian partners. While it has been relatively simple to introduce corporate standards and procedures, transposing these to implementation at operational levels has been, and still is, a major hurdle. In Russia, owned subsidiaries are in themselves legal and autonomous entities and each General Director of such subsidiaries has the legal power to veto corporate efforts to impose SHE standards that he/she views as ‘non-compliant’ with the regulations or which are not in his/her best interests. In many instances the resistance stems from the necessary changes to the way SHE is managed and controlled in a way that places a direct and accountable responsibility with senior management. As the minority shareholder the consequent limited influence exerted by the western partner on improving

SHE performance gives rise to a serious concern that, in the event of a major accident, it will be accused of operating to double standards.

A SHE culture founded upon the risk-based approach and trying to do better than prescribed standards, promotion of a good reputation and care for the individual and the environment has matured in western partner companies over decades of burgeoning public concern and scrutiny and the increased expectations of the 'green' investor. An additional western 'driver' that clearly gets management attention is the relatively recent legislation making the most senior managers responsible and with the possibility of being found criminally negligent, if it can be shown that their failure to implement SHE measures contributed in any way to an accident.

The formerly state-owned industries of the Soviet Union did not have external visibility and, although Russian and other former Soviet Union republics have a long tradition of oil and gas activity, there is a different culture around SHE issues. Comprehensive and highly prescriptive SHE regulations exist and many of these mirror western standards but they have been developed without consultation with the industries that they regulate. The inflexibility of the prescriptive approach and its generic application often means that appropriate SHE measures are not developed on a site specific basis and in any case the corporate response, at least amongst the older generation of management, is to either merely comply with or pay lip-service to the law as cheaply as possible. In many cases, they pay the fines for non-compliance. SHE measures are seen as a cost to the business, rather than as an investment to achieve better performance and higher profitability. Enforcement of standards is correspondingly poor. There is a 'blame culture' that inhibits managers taking any personal responsibility for SHE issues. Accident investigations generally seek to lay the blame on the unfortunate victim (his own stupidity caused the accident) rather than to discover the root-causes and prevent recurrence. Internal shareholder and public pressure for better performance has been, and still is, lacking.

There is an emerging generation of native young engineers and managers, who are well-trained and cognizant of the need for better SHE performance in the new profit-focused privatized industries. However, they are frustrated by their inability to make progress against the entrenched attitudes and lack of personal commitment to SHE of the 'old-guard' management hierarchies. Monetary bottom lines and profit margins were much less important than production targets in the Soviet period and there is a strong resistance to change.

The situation is somewhat better in some of the former Soviet Union republics in that they are trying harder to change their SHE culture in a break from their Soviet past. However it may also be said that at the time of the collapse of the Soviet Union, these republics were left largely bankrupt. Industries were virtually defunct because of lack of investment and maintenance and much of the technological expertise returned to Russia. Alliances with western energy companies were made to provide the necessary investment, expertise and technology to develop natural resources and provide access to lucrative western markets. Consequently, western influence on the required and expected SHE standards was commensurately much greater.

This paper gives an anecdotal account of the differing approaches to SHE in the oil and gas industries in the UK and Russian Federation (RF). The paper seeks to explain differences in SHE performance between the RF and the UK and searches for ways to transfer some of the best international SHE practice, having regard to the sometimes large cultural differences and entrenched attitudes.

The authors are both engineers, working in SHE in the Russian Federation Oil and Gas industry. This paper is based on their personal experience, mainly in the oil and gas sector. No attempt has been made to produce a literature review of similar or related work in this field, although this would be useful in the future.

Both authors have a deep love of Russia, its people and culture. Any criticisms in the paper, either explicit or implicit, are made out of a desire to provoke debate and interchange of ideas and practice, in order to further the cause of improving SHE performance in all countries.

## ACCIDENT RATES

International Labour Organization (ILO)<sup>1</sup> fatal injury rates are presented in Figure 1. Table 1 presents the rates for men and women in selected years.

The latest year that the ILO has statistics for fatal injuries for both the RF and the UK is 2005. In this year and over all employment, the number of fatal injuries per 100000 employees was 12.4 in the RF and 0.6 in the UK. The fatal accident rate in the RF was 21 times that of the UK in 2005. Moreover, the relative rates have been getting steadily worse.

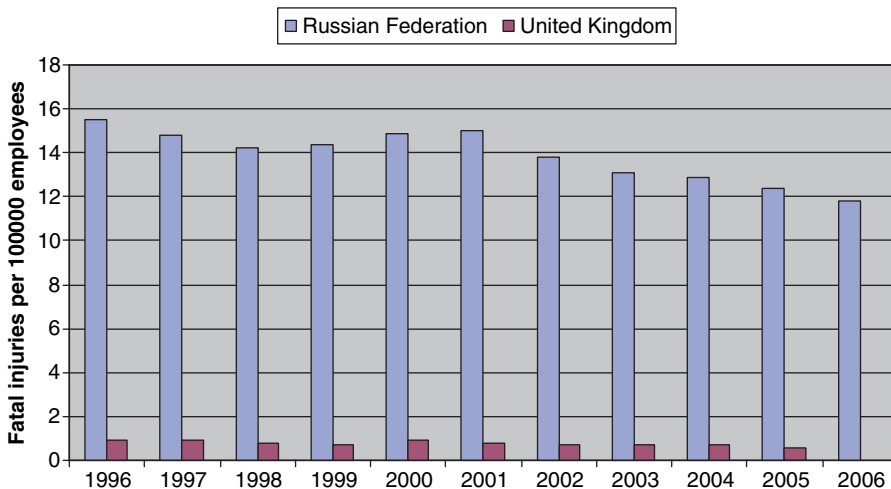


Figure 1. Fatal injury rates

**Table 1.** FATAL INJURIES reported per 100,000 employees

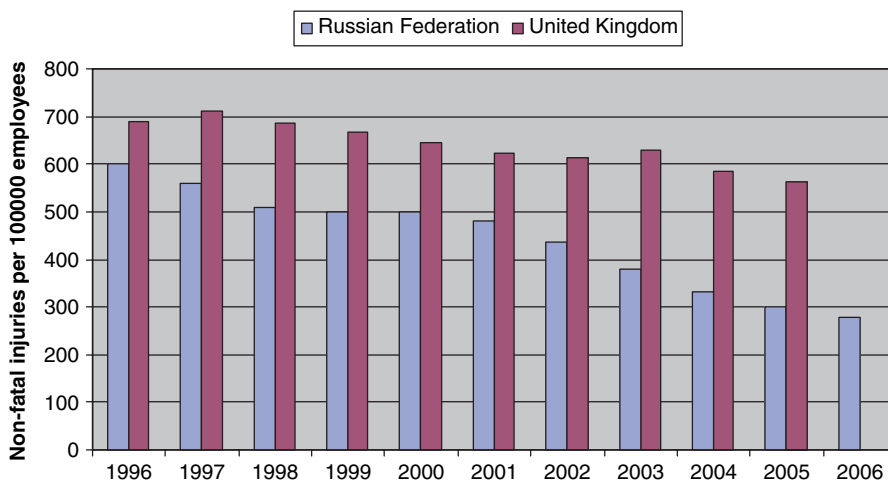
Year	1996		2000		2003		2005	
	RF	UK	RF	UK	RF	UK	RF	UK
Men	26.4	1.8	25.0	1.6	22.3	1.3	21.1	1.2
Women	1.8	-	2.0	-	1.7	0.1	1.9	0.1

The fatal accident rates in the RF and UK have fallen from 15.5 and 0.9 respectively in 1996, when the ratio was 17. These statistics indicate that the RF is far behind the best international performance on preventing fatal accidents and that the gap is widening. This is cause for concern.

ILO<sup>1</sup> non-fatal injury rates are presented in Figure 2 and differentiated by gender in Table 2.

The non-fatal injury rates for men reported by the ILO were 389 in the RF and 798 in the UK in 2005; the RF rate is less than half that of the UK. Again the rates in both countries have fallen since 1996, from 845 in the RF and 1008 in the UK, but the RF reporting rate has decreased significantly in relative to that of the UK.

A basic rule-of-thumb and an accepted ratio for approximate calculations is that there is 1 fatality for every 600 non fatal accidents; this is supported by the UK figures. If we apply this approximation to the RF fatality figures then the non-fatal injuries rate for men in Russia should be approximately 12,700, equating to 1 in 8 male employees. An extraordinarily high figure but based on field experience, knowledge of work ethic and

**Figure 2.** Non-fatal injury rates

**Table 2.** NON-FATAL INJURIES reported per 100,000 employees

Year	1996		2000		2003		2005	
	RF	UK	RF	UK	RF	UK	RF	UK
Men	845	1008	679	946	508	906	399	798
Women	285	364	269	334	225	347	180	324

management attitude it is not unreasonable to believe that at present least 1 in 10 persons in the RF will suffer a non-fatal injury every year.

In both countries it is clearly much safer to be a woman or perhaps women everywhere are more adept at letting men take the risk!

Such a high fatality rate is a considerable concern and it is possible that one of the reasons may lie in the extremely low level of non-fatal accident reports. From practically experience the authors are uncomfortably aware that many injury accidents are unreported and at times are quite deliberately covered up to avoid investigation and associated paperwork. Such action is commensurate with management being unwilling to take ownership of SHE issues. The low level of reporting suggests a very low frequency of investigation and commensurate recommendations for remedial actions to be taken to help prevent a potentially fatal recurrence.

#### ACCIDENT AND NEAR-MISS REPORTING

In the experience of the authors, accident statistics are hidden or suppressed even among companies with a high level of western influence. In one large Russian oil company with a major international oil company partner, fatalities of contractors working on company sites were segregated from company fatalities and not included in company annual reports and statistics. The reason given was that contractors were responsible for their own SHE and therefore the company should not be seen as a poor operator through no fault of its own, even though the fatalities occurred on the company's property. The authors are aware of cases where workers were paid to stay off work, in order that they did not report an accident. For instance, an acquaintance of the authors broke his leg while working on a construction site. He proudly claimed that he was give 3 months leave on full pay if he did not report his accident (this is a significant improvement on Russian labour sick-leave provisions). It transpired that the construction site was the building of a large new office block for a major Russian/western joint venture oil company. This person gave four other examples of accidents in his work area similarly treated and had heard of others. On completion of the building the contractor was commended for its good SHE performance and very low LTI frequency by the western partner.

Reporting of 'near misses' is nearly non-existent and such events are usually viewed as a 'lucky escape'. The near miss is rarely acknowledged as a significant event and almost

never investigated to the same extent as a 'real' accident. Consequently many more SHE lessons remain unlearned and the learning process remains static.

Accident investigation is at best cursory and usually blames the victim for stupidity. Root cause analysis is not an accepted practice and its introduction by western partners is often resented; particularly where poor SHE management is cited with the implicit blame that bestows. So, not only are many accidents not reported and therefore not investigated but for those that are investigated the investigation usually fails to seek out and establish root causes, identify lessons learned and make recommendations to avoid recurrence. As a result lessons are not learned, changes are not implemented, hazards remain, risks are not mitigated and the circumstances contributing to the death or injury remain in place to recur.

## **EXPERIENCE OF CULTURAL DIFFERENCES**

### **FIRE EXITS**

A fire drill was held in Granherne's initial office in a Moscow business centre. After going down many flights of stairs, no-one could exit the building because the external doors were locked. People had to wait for 'security' to unlock the doors.

Fire Exits are usually locked in Russia! Why? "If they were not, we would not have security". This statement was made by our office manager, who was explaining why the fire exits were locked in Granherne's current office.

Russia seems to be obsessed with security. Go to any shop or office in Russia and, whatever else, there will be security guards. Security seems to take precedence over safety. The security guards unlock the fire exits. Key boxes, with the keys behind breakable glass panels, have now been installed next to the office fire exits.

### **FIRE ALARM**

The alarm call points in the current Granherne offices do not sound a general alarm. They sound an alarm in a 'dispatchers' room, which is said to be continuously staffed. The dispatcher receives a visual alarm and it is up to him or her to start a tape with an alarm message for broadcast to selected parts of the building. Security will then unlock the fire exits.

### **ENVID AND HAZID 'WORKSHOPS'**

ENVID and HAZID workshops are events where the project team identifies significant environmental and safety hazards and then assesses the associated risks. It is interesting to compare two such workshops, which were organised by Granherne for a Russian client company, in terms of the different approaches and the participants' responses.

The operating company participants in an ENVID workshop were required to attend by a director. They all turned up and took part. The ENVID was done by first compiling an environmental hazards register, listing the activity and environmental impact, etc. The register was provided to the workshop participants and they were led through the ENVID

process by examining each hazard in the register, making changes and additions where necessary. There were no problems with this approach.

The participants in a HAZID were invited by a peer in the organisation. Many of them did not turn up, saying that they were too busy. Would they have found time, if required to attend by a senior person? The main difference to the ENVID was that the HAZID workshop started with a blank hazards register. There was much explanation of the HAZID process and there were two sessions where the participants were led through this process by identifying some hazards, assessing the risk and determining avoidance, control and mitigation measures. However, the response was very different to that at the ENVID. There was resistance to the HAZID process, because “it was not understood”. Moreover, there were complaints that they (the operating company and head office people associated with the project) should not be doing the consultant’s work for them. There was no understanding of the need for ‘brainstorming’ and that, in order for the project team to own the hazards, they must identify and assess them.

These experiences highlight two important cultural differences:

1. There is control over people’s response to situations, even when this is contrary to safety – and an acceptance of this control.
2. There is a reluctance to take ownership of SHE issues, or even contribute to any work in this area, unless specifically required by superiors to do so.

Contrast this with the culture in the UK, where people would be aghast that fire exits should be controlled by security and where everyone is encouraged, even required, to take ownership of SHE matters.

## **SHE REGULATIONS IN THE RF OVER-PRESCRIPTION**

Good regulations exist in the RF and these mirror most western regulations. For example, the requirements for Environmental and Social Impact Assessments on new projects are very comprehensive and differ only in that they are more technically focused and have much less emphasis on the softer more discursive issues. Almost all the SHE regulations are prescriptive and, where overlap occurs, such as between the oil spill response regulations produced by the Ministry of Ecology and the Ministry for Emergency Situations, they become frequently ambiguous in their interpretation and application. Although there is a supposed consultation process between the Government and industry in drawing up the regulations this is practically non-existent and industry response to proposed legislation is mostly ignored. The regulations are often not enforced in a way designed to ensure that they are effective. For example, company emergency response procedures are written to meet the style prescribed by the regulations and for management this becomes more relevant than ensuring that the document content is appropriate to meet the best interests of the company.

Some of the prescriptive environmental standards, such as the allowable oil-in-water content for offshore discharges in the Caspian Sea, are technically impossible to achieve except under laboratory conditions and the fines for non-compliance are standardised. It is

perhaps hard to understand why an unachievable standard was set. However, the problem is that if it is easier to pay the fine and be allowed to continue operating than to comply with the regulations, then the regulations become ineffective. This means that the quality of discharged water is much worse than would be the case if achievable standards were set and properly policed. This problem also highlights the absence of any meaningful process for consultation between Government ministries and industry to make sure that any proposed legislation is effective and sets achievable standards.

The problems that arise with very prescriptive legislation extend beyond mere compliance at the front end. A particular example of this is in the laws covering oil spill response. The legislation is comprehensive and even prescribes the length of time that can be taken to clean up an oil spill<sup>2</sup>.

For example, in August 2003 the tanker “Viktoria”, of 5000 tonnes deadweight, was loading at a port in the upper Volga River. The vessel exploded and spilled some 4000 tonnes of oil into the river. This accident did not receive much publicity but it is well documented outside Russia. The “Viktoria was registered as a foreign going vessel and was covered under international fund conventions for oil spill clean-up costs. (In fact the vessel was the first to be covered under the fund in the upper reaches of a river). Consequently the insurers sent a representative from the International Tanker Owners Pollution Federation (ITOPF) to witness the clean-up operations and to ensure that the accident was fully recorded and that costs and claims were justifiable. A summary of the ITOPF report was included in the Annual Summary of the IOPC Fund<sup>3</sup>. This report stated that some 50km of the Volga shorelines were polluted and that clean up operations were still taking place in late November, until the encroaching ice prevented further work. Locals reported that oil remained visible in localized patches after the thaw in the following Spring.

Official reports in the Russian system stated that all the oil was fully contained locally and that all the oil was removed from the surface by the end of September, within the time required by the regulations. To have not reported this would have led to censure of the chief of the clean-up operations for failing in his duties. The fact that to have achieved such a feat was technically impossible becomes irrelevant. Sadly then, all details of the clean-up operations and arrangements subsequent to this are omitted from the official report and, again, valuable lessons are lost.

This example highlights prescriptive regulation inhibiting objective recording; whereby many valuable lessons regarding oil spill response on the Volga river have been lost. When the IOPC Fund annual report was shown to a member of the Ministry responsible for the clean-up operations, it was condemned as a lie. This further demonstrates the attitudes that prevail at ministry level and supports the view that there is reluctance to accept the need for change.

#### SHE VIEWED AS A COST, NOT AS AN INVESTMENT

A good example of this is the RF regulatory requirement that an oil or chemical industrial site should have a person in charge of emergency response and civil defence. The intent of



the regulation is clear but compliance is minimal; persons recruited for this task have little or no specialised training and they have no authority and no control over resources. They are in place merely to provide the 'tick in the box'. Most western companies view such a position as an important component part of the process for protecting the company's assets and as an investment. The person will be well trained, be given good resources and the necessary authority to do her/his job.

Paying fines for non-compliance, rather than complying, because the alternative would be too expensive, is often the platform used to make payments to local inspection authorities. These payments have become, over time, an expected form of 'good-will' payment that also ensures a favourable scrutiny at the next inspection. An area where non-compliance is frequently found is in the failure to meet the full extent of fire prevention and fire fighting regulations. Insistence on compliance would mean that these fines would disappear together with the good-will of the inspectorates. This is a further and important secondary factor in determining the reason for resistance to change.

In summary the authors propose that Western companies see regulations as the minimum standards to be achieved when determining what SHE resources need to be in place for the proper protection of the company and its assets. In the RF the highest standard to be achieved is meeting the regulations and if this is not possible or cost-effective, 'we will pay the fines'.

## **THE CHALLENGE**

It is perhaps too easy to be critical of a highly prescriptive approach that is difficult in the extreme to police and even more difficult to ensure compliance. A deeper look is required to see why this approach originated and the existence of the enduring post-Soviet 'hangover' that is still acting to prevent SHE improvements in the RF.

During the Soviet Union period all industry was state-owned and managers were tasked to meet production targets. There was no consultation on SHE matters, the state was the industry and therefore its own regulator. The Soviet Union was massive with many autonomous regions under central control exercised by the ministries in Moscow. The controllers, as regulators, realised that unless SHE requirements were to a common standard, strictly prescribed and highly regulated with financial penalties for non-compliance, they would not be implemented. Indeed the foresight of these regulators in seeking to establish a reasonable SHE culture is laudable and in this light it is easier to understand the process they chose. The 'hangover' stems from:

- The difficulty that western companies have in understanding and working with a prescriptive SHE regime.
- The strong resistance by the regulators to take a more constructive and consultative approach with industries. This is viewed by many of the old-guard in the Ministries as a prelude to losing the necessary levels of central control.
- The reluctance of the regulators to review and revisit legislation to ensure it remains appropriate.

- The lack of any formal requirement for senior management to take personal ownership and responsibility for SHE issues.

The inhibitors to change may be summarised as follows:

- A ‘blame’ culture that prevents objective accident reporting; investigations seek to lay blame rather than discover the root-cause.
- Absence of formal requirements for risk assessment and no task-based risk assessments.
- No personal responsibility or ownership of SHE at any level:
  - managers don’t want the responsibility,
  - managers are not made to take responsibility,
  - this attitude ‘cascades’ through the organization.
- There is neither shareholder nor public pressure for better performance.
- Acceptance of control, with customary violation of over-prescriptive regulation.

## HOW TO ENCOURAGE CHANGE

At almost all levels (except at senior middle management where most of the costs and responsibility for implementing change will be most felt) there is an increasing acceptance and support of the need for change and an increased awareness of the benefits that those changes would confer.

The concepts of cost benefit analysis are well understood in the RF but have not been applied to SHE. Applying this to SHE would in most instances provide the necessary justification for investment and training.

The authors would encourage the formation of Industry groups, for example representing Oil and Gas, Mining, etc, to create a cohesive lobby to take forward common points of interest. The priority of this group would be to encourage and build trust between the Regulators and industry with the aims of improving the consultation process and creating a good working relationship.

Compare the situation in Azerbaijan where, although a substantial amount of prescriptive legislation remains from its former Soviet Union days, the Government has conducted positive consultation with the oil companies and has agreed to changes to some procedures, whereby it agrees and sets achievable standards and targets, with penalties for non-compliance. Effectively there is the development of an embryonic self-regulatory system allowing a company to meet set targets in whichever way is best and without the restraints imposed by prescriptive methodology. The Government has acknowledged that this is much easier to monitor and control; any non-compliance is immediately apparent and penalties can be invoked where necessary. Persuading the Russian Ministries to adopt this approach is perhaps the most significant challenge and until this process begins it presents the ultimate hurdle to sustainable SHE improvement.

On a highly positive note, the Russian Government has recently tabled new legislation to promote the use of renewable energy and which describes the process for the

remuneration of energy producers who introduce the provision of energy from renewable resources. This is encouraging for the environmental lobby but in a country where there is an abundance of steam coal and oil, produced much more cheaply than the investment required to sustain a renewable energy system, support for such change is perhaps harder to understand.

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