

Less with Less



HSE Resource Strategies in a Cost Constrained World

Don Lloyd

Global Managing Partner, Oil & Gas
March 2016

Introduction

From late 2014 to early 2016 the oil price collapsed by ~75%. This has had major impacts on both CAPEX and OPEX spend in the Oil & Gas sector resulting in the cancellation/deferment of major capital projects and significant workforce reductions both in terms of 'direct' staff and 3rd party contractors. In view of this, a key challenge facing the sector is how best to deliver the desired business outcomes in a safe and sustainable manner.

Through ERM's work with leading companies across the Oil & Gas sector (and others, including Mining and Chemicals) we have

gained a sound understanding of what drives a company's view on the 'required' level of HSE resources and HSE management process

In this context, the aim of this paper is to explore:

- An 'event driven' approach that was prevalent across a number of companies.
- An example of a more systematic and risk-based approach that ERM uses with leading organisations to ensure fit-for-purpose resources/processes that are commensurate with the prevailing risk profile.

Looking back: a common approach

Historically, a common approach could be characterised as 'event driven and reactive'. In practice, this would develop and manifest itself as shown in Figures 1 and 2.

- An organisation that feels comfortable with its HSE performance and draw high level assurance that its HSE Management System was appropriate.
- A major incident occurs either within the organisation or in a similar organisation within the same sector.
- An internal and external (e.g. regulators) reaction along the lines of "this must never happen again and so a detailed investigation must be conducted to understand the root causes".
- Based on these findings the organisation would allocate additional HSE resources to develop processes to better control the identified weaknesses. Typically, this would include more detailed procedures, additional training and increased levels of central assurance i.e. the resource levels and processes would increase in a patchwork to address the causes of past incidents.
- These additional resources and more detailed processes then become regarded as the 'new norm'.

- Given the cyclical nature of the Natural Commodities sectors (e.g. O&G and Mining) some form of economic downturn (as highlighted above for the recent collapse in oil price) will put pressure on costs and resource levels.
- In the absence of a structured and risk-based approach staff reductions would often be made based on the application of a group-level cost reduction target along the lines of “the recent collapse in commodity prices has had a significant impact on our projected cash flows. In view of this it is imperative that each function reduces its staff costs by 25% by the end of the calendar year... Please reflect in your budget submissions”.

Note: Increasingly, this percentage target for staff reductions is set by some form of benchmarking exercise in which the resources levels for the group and/or individual functions is conducted by an external management consulting group. This high-level benchmarking highlights to senior managers that peer companies are successful in doing ‘More with Less’ and gives them comfort that significant cuts are not unreasonable.

If and when these staff cuts take place, there is a perceived resource gap in which the remaining staff feel very concerned that they are no longer able to effectively implement the detailed HSE Management System that the organisation still has in place i.e. a disconnect develops between resources and activities. In these circumstances, there is often a feeling amongst staff that they are ‘coping rather than managing’ and that the residual risks are increasing as resources are spread thinly over a broad range of risk management processes.

As mentioned highlighted above, this approach is reactive and somewhat superficial in the level of risk-based analysis that is conducted. These short-comings have been recognised and organisations are increasingly looking for a much more systematic and risk-based approach.

Figure 1. HSE resources: looking back from a major incident

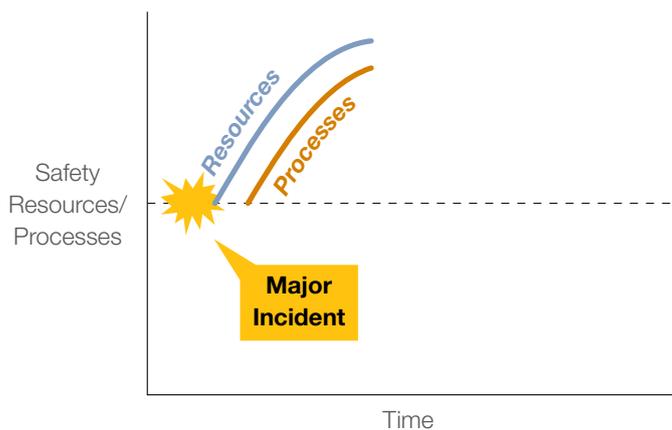
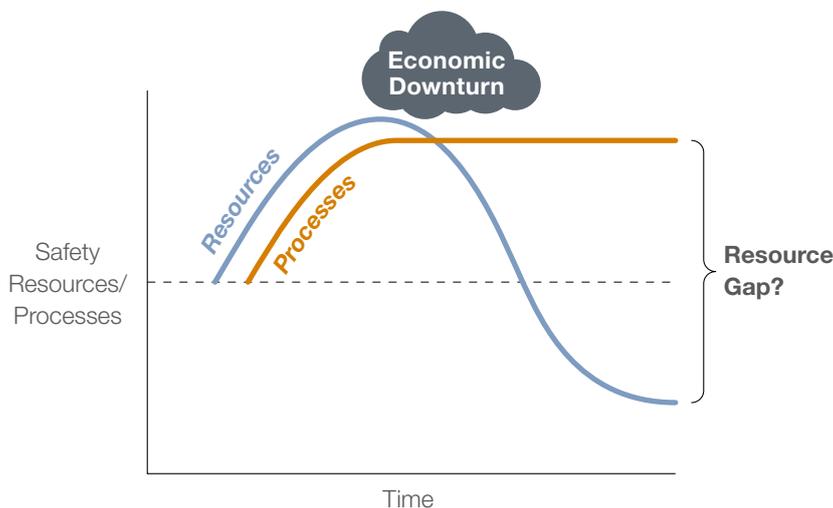


Figure 2. HSE resources: the impact of a downturn



Going forward: a systematic and risk-based approach

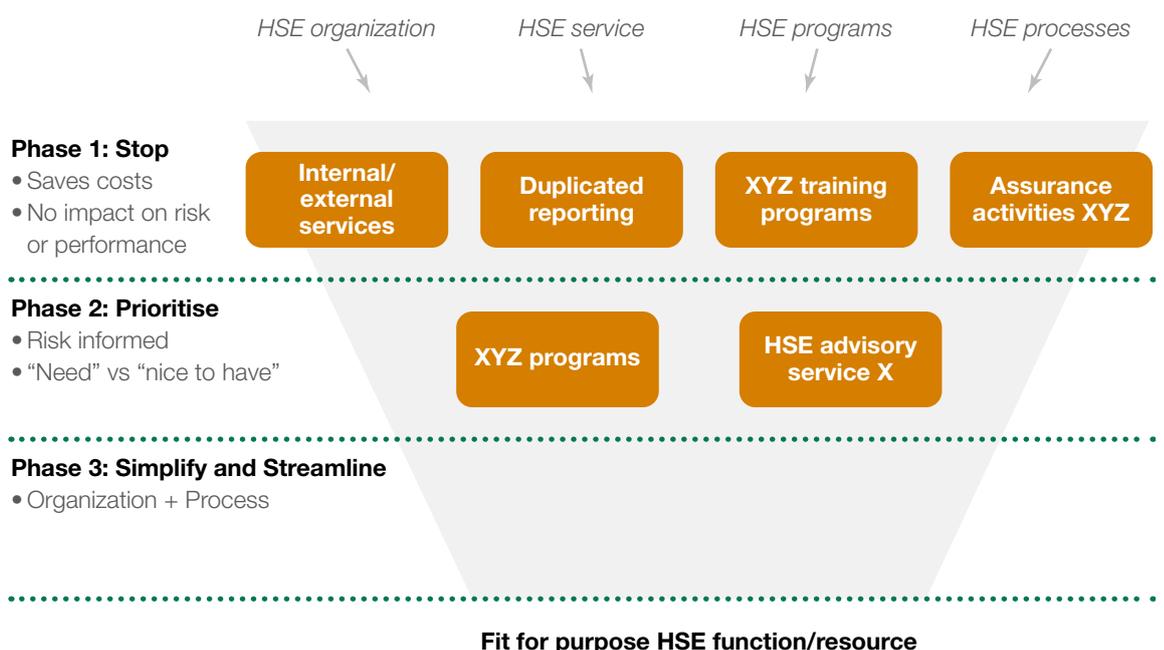
As implied in the title, it is important that such an approach must be underpinned by a good understanding of the organisation's current risk profile and risk appetite. A true baseline needs to be established of cost/risk/work being undertaken by the HSE function and HSE work undertaken by the front line/external consultants etc so that informed decisions can be made. The aim then is to ensure that the resource levels and HSE management system are appropriate and proportionate to the prevailing level of risk.

An example of a structured and systematic approach applied by ERM is shown in Figure 3.

The starting point is to establish a clear picture of:

- EHS resource levels (e.g. 'central' function and embedded in operational teams).
- Relative accountabilities and activities.
- EHS management system requirements (including development, maintenance and implementation support).
- The current and likely future risk profile e.g. a site that is about to double in size...a site that is closing down etc.

Figure 3. HSE resources: way forward



Once this information has been collated HSE 'activities/expenditure' are passed through a three stage 'filter' process i.e:

Stage 1: Stop

The aim here is to identify any activities/spend that can be stopped without increasing the residual risk. For example, there are often risk controls and associated training requirements that were previously included in the HSE management System that are no longer required as the source of the risk has been removed. Experience to date indicates that ~10% of the resource requirements can be eliminated at this stage.

Stage 2: Prioritise

At this stage the aim is to differentiate between those activities that are 'needed' vs those that are 'nice to have' in the current climate on the basis that those that are 'nice to have' can be deferred – again without an increase in risk. Examples include, deferment of the organisation's participation in a joint-industry research programme or the cessation of a systems development project. Again, experience indicates 'savings' of ~ 15% at this stage.

Stage 3: Simplify, streamline, standardize

All of the activities that reach this stage are deemed to be necessary in order to deliver the desired outcomes. As such, the question is "is there a better (more efficient and cost-effective) way of achieving these outcomes?".

For simplify/streamline, this involves scrutinising key activities/steps and asking if they add sufficient value to the outcomes. If not, they can be eliminated saving resources and costs. Figure 4 illustrates ERM's experience of potential areas for streamlining.

In terms of standardization, it was clear from the CEO dialogues at the recent IHS CERAWEEK conference that this subject is very much on the 'C-Suite' agenda. For example, Jeff Immelt (Chairman and CEO of GE) compared the degree of customisation in a Combined Heat Power Plant with that of a Sub-sea Christmas tree. His point was that the Christmas-tree had 100 times the amount of customisation. This adds a major additional cost in terms of up-front design and subsequent design reviews (e.g. FMEA, HAZOP) and equipment/system verification and certification.

In view of this it is important to review and ensure that any technical safety and environmental engineering inputs account for the benefits of standardization and Stage 3 of this systematic process will include this in its scope.

Whereas the previous approach generally equates to 'More with Less' this more systematic approach results in 'LESS with LESS'. As such, the organisation does less 'stuff' with less people and yet achieves the same outcome in terms of risk management outcomes i.e. it develops a more efficient and cost-effective approach to the management of the current risks.

Figure 4. ERM experience: streamlining HSE activities



Discussion

Key points of discussion from the above sections include:

‘Organic’ Growth in HSE Resource Levels

The ‘event driven and reactive’ approach as described above is obviously a simplification of what happens in practice i.e. this ‘spikey’ event driven growth is generally accompanied (to a greater or lesser degree) by organic growth as the company HSE Management System expands to accommodate changes in regulations etc. Nevertheless, the ‘Less with Less’ approach applies equally to this situation.

Resource/Cost Savings

Based on our experience to date typical resource/cost savings associated with the Staged process are as follows:

- Stage 1, *Stop* – typical savings are in region of 10%.
- Stage 2, *Prioritise* – typical savings are in the region of 10 to 15%.
- Stage 3, *Simplify, streamline, standardise* – again simplify/streamline yields savings of ~10%. Savings associated with *standardise* are much harder to quantify not least because it is a multi-functional lifecycle issue. Needless to say that this could be a major source of cost reduction.

Some people may point out that equivalent reductions (c30%) are also typically achieved using the ‘event driven and reactive’ approach. This of course is true. However, in the first case cuts are made and then people worry about the

implications whereas, in the second case, the implications and benefits of proposed cuts are considered upfront via a risk-informed decision process. This, more considered approach, feels much different (i.e. positive and sustainable) to those remaining within the organisation.

Benchmarking

It will be noted that benchmarking was mentioned in the earlier ‘event driven and reactive’ approach but not in the later systematic approach. This raises the question – does benchmarking have a role in a risk-based methodology or are they mutually exclusive? This answer to this is – yes it can have a place and (therefore) they are not mutually exclusive.

However, there is often a key difference between how benchmarking is utilised between these 2 alternative approaches i.e.

- Event Driven/Reactive – in this case benchmarking is often used as the ‘answer’ i.e. that the output represents the target cost reduction to be achieved. So, the cuts are made and (as stated above) the implications are then figured out.
- Systematic – in this case, it is recognised i.e. it recognises that high level benchmarking generally doesn’t account for an organisation’s specific risk profile (i.e. it will be generalised for a sector) and doesn’t account for the specific risk appetite or HSE culture, values or aspirations. As such, the benchmarking output is noted as a broad-brush guide and regarded as a necessary but not sufficient tool by which to judge what constitutes a ‘fit-for-purpose’ HSE function and management system.

What are the benefits to an HSE function and to the organisation?

The argument and concern often voiced to us by HSE functions regarding a systematic and independent review of HSE costs and resources is – why would we volunteer to a review that will most probably result in a cut in headcount and budget? The answer to this this is simple - it is much preferable to an alternative that may be characterised as ‘CUT and COPE’ i.e. given the prevailing cost pressures then some form of cuts are inevitable therefore let’s ensure that it’s done in a rigorous and risk-based manner.

In turn this should re-assure the overall organisation in that cost savings are achieved whilst not increasing the risks to:

- the health and safety of the workforce and general public,
- the environment, and
- the organisation’s Licence to Operate.

Overall, we have found that the time and cost associated with such a systematic review are widely accepted as value adding and cost-effective given the comfort and assurance gained from such an exercise.



For further information, please contact:

Don Lloyd

Global Managing Partner,
Oil & Gas
2nd Floor Exchequer Court
33 St Mary Axe
London EC3A 8AA
T: +44 7585 405 466
E: don.lloyd@erm.com

Matt Haddon

840 West Sam Houston Parkway
North
Suite 600
Houston, TX 77024
T: +1 832 730 4406
E: matt.haddon@erm.com

Tom Woollard

2nd Floor Exchequer Court
33 St Mary Axe
London EC3A 8AA
T: +44 2032 065 273
E: tom.woollard@erm.com

Marilee Robertson

840 West Sam Houston Parkway
North
Suite 600
Houston, TX 77024
T: +1 832 924 5033
E: Marilee.robertson@erm.com

About ERM

ERM is a leading global provider of environmental, health, safety, risk, social, and sustainability related consulting services. We have more than 160 offices in over 40 countries and territories employing more than 5,000 people who work on projects around the world. ERM is committed to providing a consistent, professional, and high quality service to create value for our clients. Over the past three years we have worked for more than 50 percent of the Global Fortune 500 delivering innovative solutions for business and select government clients helping them understand and manage the sustainability challenges that the world is increasingly facing.

For over 40 years we have been working with clients around the world and in diverse industry sectors to help them understand and manage their environmental, health, safety, risk, and social impacts. The key sectors we serve include oil and gas, mining, power, manufacturing, chemical, and pharmaceutical. All face critical sustainability challenges and our clients in these and many other areas rely on our ability to assist them to operate more sustainably which has a positive impact on our planet.