

IChemE

heart of the process

Self Assessment Toolkit
for
Safety, Health &
Environmental Assurance

Foreword

Risk management is a fundamental part of good business management practice and is an essential element of good corporate governance. It is about ensuring business objectives are more likely to be met, increasing stakeholder confidence, protecting reputation and avoiding unwanted surprises and 'fire fighting'. Every person in an organisation has responsibility for managing risks which are determined by their specific role. Frequently these are poorly identified and not explicit. This can lead to poor internal control, gaps in responsibility and in the worst cases lead to major losses for business. There are many examples that, where the lack of control relates to Safety, Health and Environmental risk management, poor corporate governance and internal control have led to accidents causing serious injuries and deaths of employees and members of the public. Consequential corporate and personal prosecutions have resulted in severe consequences in addition to the immediate business impact.

Whatever your position in an organisation, this toolkit is for you. It will help you determine what you need to do to ensure you play your part in your organisation's SHE arrangements. Consequently, it will help to secure the intended safety, health and environmental standards, help you to avoid personal liability and help the entire enterprise improve the control and mitigation of its SHE risks. While this first edition draws heavily on UK based experience the toolkit has universal application.

I wholeheartedly commend it to you as a good business and personal investment.



Greg Lewin

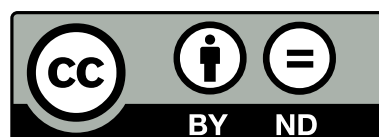
President of the Institution of Chemical Engineers
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1 How to Use this Toolkit

The toolkit is organised in self-contained sections and provides a thinking and self-assessment framework. As such it is a working desktop manual to be used to refresh understanding and arrangements, when roles are changed or as reference for auditing existing arrangements and competencies. It does not set out to give right or wrong answers, but whatever your position it should enable you to answer the following questions:

- What are the key hazards in your span of control?
- What are the key risks that might trigger events and what are your key risk controls?
- Are Safety, Health and the Environment (SHE) issues being given the priority you want and expect at all levels and in all decisions?
- What is your assurance process and are all the controls in place and working?

The principal objective is to develop a personal scheme of delegation (Section 10) that enables explicit understanding of what has been delegated, how that responsibility is discharged and how assurance is provided to superior levels and from subordinate levels. Sections 7-9 provide background information that will be needed to complete the scheme of delegation. The reader needs to determine the extent to which he/she is already conversant/knowledgeable with these subjects and in some cases might be able to proceed immediately to Section 10. However, all users should read Sections 1-6.

Be prepared for potentially lots of issues that require resolution as a consequence of working through the toolkit. While this could be a daunting prospect, the critical point is that the assessment has been carried out and at least the issues have been identified hopefully before any adverse event. At this point, identify the biggest exposures and establish appropriate action plans to deal with these urgently, deal with some easy quick wins to reduce the list of issues and prioritise all remaining issues. This way, progress can be made in a systematic and controlled way. The action plan, the process for implementation and progress review will reduce risk and reduce exposure. It will be clear evidence of a highly responsible and professional approach.

Whilst this first issue of the toolkit uses UK incidents as examples, it is hoped that readers based outside of the UK will provide other examples to enrich the international appeal of the toolkit. The booklet, *100 Largest Losses 1972-2001*,¹ describes a diverse global range of large property damage losses in the Hydrocarbon-Chemical Industries. However, the principles set out in this toolkit have universal application.

It is the intention that the assessment should be a living document to which the user can refer and update to take account of changes in role and responsibilities. It is suggested that the scheme of delegation be reviewed at least twice a year.

¹ The 100 Largest Losses in the Hydrocarbon Industries - Large Property Losses in the Hydrocarbon-Chemical Industries, 21st Edition: 2009 <http://www.marshriskconsulting.com/st/PDEv_C_371_SC_228136_NR_306_PL_234871.htm>

2 Introduction

The Turnbull report² sets out current best practice guidance to UK companies for internal control and risk management; an extract is provided in Appendix 1. This implicitly requires clear and explicit arrangements for the management of Safety, Health and Environmental risks. These are fundamental for safe operation and are a cornerstone for the organisation's 'licence to operate'; they should include effective control and assurance processes. These arrangements will include policies, procedures and defined organisational arrangements and responsibilities. They will have education and training arrangements to seek to ensure awareness and maintain the necessary knowledge and skills to mitigate the defined risks. Further, they will have auditing arrangements to provide assurance on how well the organisation is managing its SHE risks and to identify opportunities for improvement. In the US, through the commonly named Sarbanes-Oxley Act, the importance of all assurance functions has become far greater with defined responsibilities on directors and managers for the identification and disclosure of risk. The practice set out in this toolkit is considered to be consistent with those requirements and while the examples of incidents referred to are UK based the principles are universal.

In spite of good intentions and arrangements, even well run organisations have major incidents affecting people and assets. In addition to the human impact of these incidents, they have a significant adverse impact on the financial performance of their business due to interruption, diversion of resources, reputation and increases in insurance premia.

There are many examples where if policies and procedures had been properly followed incidents would have been avoided. Also, deviation from prescribed arrangements is rarely a one off event; in fact such deviation has frequently become custom and practice either in response to personal desires to get jobs completed quickly or worse to meet management prescribed incentives. This practice not only results in injury, death or environmental incidents but also, increasingly it leads to personal and corporate prosecution resulting in fines and potentially imprisonment³. Such prosecutions could impact either the company, any individual in the company or both.

How do these situations arise? The Board or owners, and directors of companies have genuine objectives to achieve high standards. Managers and employees want to operate in a safe environment. The Board or owners approve the organisation's overall policies and arrangements for their discharge through the Chief Executive. Responsibilities might be delegated throughout the organisation including temporary workers (through contractors or interim workers hire) to a greater or lesser extent through explicit responsibilities. The efficacy of these arrangements might be monitored through defined measures, e.g., SHE performance and the results of audits. However, how does each individual who has delegated some of their responsibilities to others gain assurance about that responsibility? How does each individual gain assurance that they are doing all they need to do to meet the requirements of policy and procedure? What is the assurance process? How does the Board (or owners) really know that their good intentions as set out in their policy have been converted into effective processes? How well are the risks understood and managed?

2 The Turnbull Report—Revised Guidance for Directors on the Combined Code
<<http://www.frc.org.uk/documents/pagemanager/frc/Revised%20Turnbull%20Guidance%20October%202005.pdf>>

3 Examples of recent prosecutions arising from major incidents.
Transco Gas Explosion, Larkhall, 1999 <<http://www.hse.gov.uk/press/2005/e05114.htm>>
Conoco Phillips Humber Refinery Explosion, 2001 <<http://www.hse.gov.uk/press/2005/e05089.htm>>
Waste Transfer Company Fatality, Wandsworth, 2004 <<http://www.hse.gov.uk/press/2005/e05076.htm>>
Shell UK Exploration and Production Brent Bravo Fatalities, 2003 <<http://www.hse.gov.uk/press/2005/e05059.htm>>
Clariant Life Science Molecules Serious Injuries, flintshire, 2003 <<http://www.hse.gov.uk/press/2004/e04178.htm>>
Sovereign Rubber Ltd Injuries and Fatality, Stockport, 2001 <<http://www.hse.gov.uk/press/2004/e04063.htm>>

While generic ideas are provided in this toolkit, these are no substitute for using the proformas and questions to develop the solution that is relevant to the particular character and environment in your organisation. Ideally, the entire enterprise should use the toolkit, but it can be used by any individual to ensure that their accountabilities are understood and properly discharged.

3 Self Assessment Toolkit Description and Process

Throughout this toolkit the word 'responsibility' means the contribution of the individual to the organisation; it is a contribution that can be wholly or partly delegated. The word 'accountability' means the way in which a specific personal responsibility is measured; that accountability can not be delegated.

Successful SHE performance depends on clarity of roles at all levels in the organisation, competent delivery of role accountabilities and assurance processes that provide the essential confidence that risks are under effective control. This toolkit leads you through an understanding of the relationship between delegated responsibilities from the Board throughout the organisation and the assurance processes that enable managers, directors and the Board to know that the controls are functioning.

To provide a context for the subsequent self assessment process Schedule 1 in Section 6.1 poses some key benchmark questions about your personal situation. Some examples of poor control environments which have led to major fatal accidents are provided in Section 6.3 to demonstrate the consequence of poor management of SHE risks.

Understanding the SHE risks and their mitigation is fundamental for effective control. The next stage is to ensure that there is clarity about the SHE risk register associated with your responsibilities. A framework is provided to help you achieve that understanding (Section 7) and also assess the competence/capability to manage those risks (Section 9).

The next stage of the process is to use a self assessment questionnaire to assess your role and what you do under the headings of Policy, Leadership, Management Systems, Competence and Assurance. This should provide more detailed clarity about your actions to control the risks in your area of responsibility and should identify any areas of weakness or opportunities for improvement of the local control environment.

This process should be followed to assess your exposure whether or not it is applied to an entire enterprise. The objective, after all, is to ensure that the SHE risks delegated to your role and those that you have delegated are clear and understood and that there is clarity about the assurance process. This should ensure that you will be doing all you need to do to make your contribution, satisfy your accountabilities and not be exposed to any personal liability arising from incidents.

The scheme of delegation framework can now be developed. This sets out the delegated responsibilities, accountabilities and the associated assurance processes. Once this is developed, it is recommended that it is tested with peers, subordinates and supervisors. This should enable framework to be validated and completed.

finally, this self assessment process will only deliver the desired outcomes if it is put into practice. At least you will have a more effective control environment, which should minimise the risk of accidents and major incidents. Particularly, it should enable you to have confidence, assurance and a clear conscience that you are doing all you need to do to play your part in the control of SHE risks in your organisation.

These process steps are summarised in the following flow chart, Diagram 1.

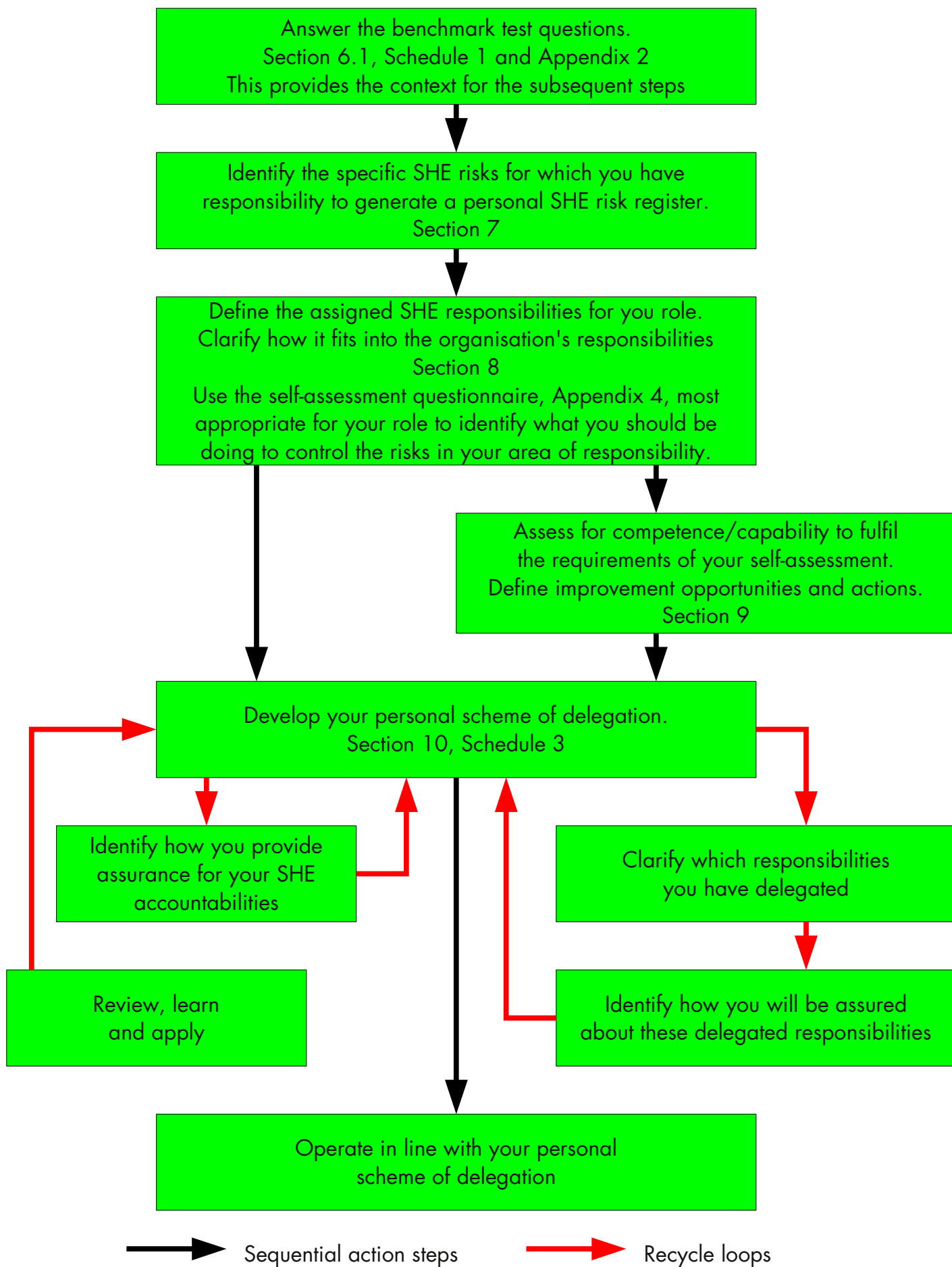


Diagram 1 – Process Steps

4 Management of Safety, Health and the Environment

There are many sources of good practice for the management of safety, health and environmental issues. It is not the purpose of this toolkit to duplicate such material so this section summarises the principles and provides a link to relevant sources.

Fundamental to the effective management of safety, health and the environment is an understanding of the hazards and risks that need to be controlled. These will be managed through clear written policies and clear organisational arrangements for delivering the policies and monitoring performance. There should be a clear corporate management of SHE framework as illustrated in Diagram 2 below.

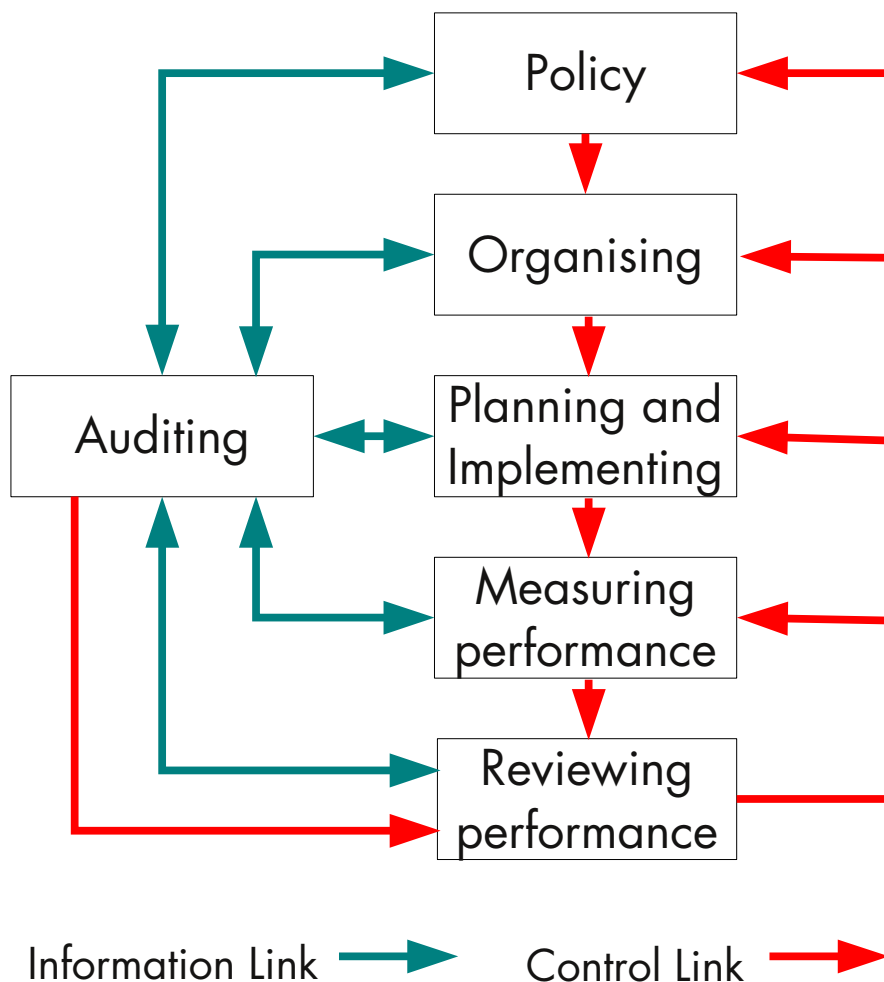


Diagram 2 - Key elements of successful health and safety management

Further guidance can be found on the Health and Safety Executive website⁴ in their pamphlet HSG65 and in the COMAH Safety Report Assessment Manual⁵. This approach to managing health and safety is tried and tested. Each of the five steps illustrated above is an essential component of the framework.

The process depends on roles being filled by competent persons. Individuals are accountable for operating within the limits of their knowledge, experience and competence. Those appointing individuals to roles have a particular accountability for understanding the requirements of the role, the experience and competence required and appointing individuals who meet those requirements.

4 Managing health and safety. five steps to success <<http://www.hse.gov.uk/pubns/indg275.pdf>>

5 COMAH Safety Report Assessment Manual (Section 1.1), Major Accident Prevention Policy and Safety Management System <<http://www.hse.gov.uk/comah/sram/>>

5 Schemes of Delegation and Assurance

To give effect to the policy and organisation framework outlined in the preceding section clear arrangements are required to delegate responsibilities throughout the enterprise as illustrated in Diagram 3.

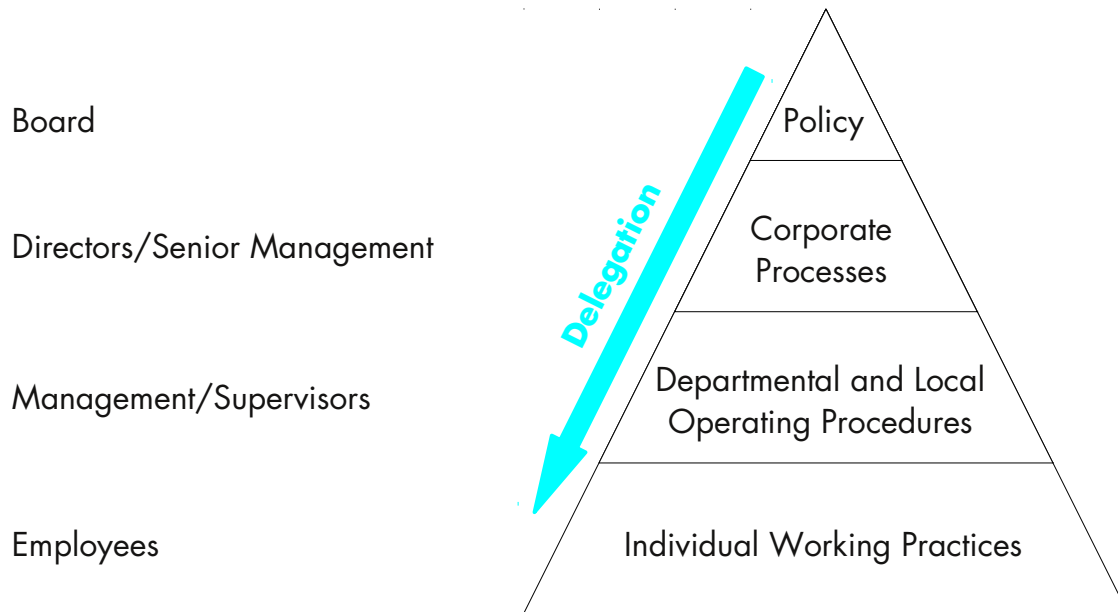


Diagram 3 – Delegation Framework

In this framework of delegation, accountabilities at each position should be explicitly defined. Examples of questions that should be answered as this framework is developed are:

- Does the Company have clear written policies for Safety, Health, and the Environment?
- Are there clear and explicit responsibilities throughout the organisation covering corporate processes, procedures and practices?
- Do the procedures set out how responsibilities are to be discharged?

For some aspects in this framework arrangements might be very prescriptive leaving little or no discretion to the individual. For example, there will be complete prescription about the use of a 'permit to work' procedure and the situations where it applies. For other aspects the general outcome required might be specified but the means of achievement will be left to the knowledge and experience of the individual. This requires the individual to assess the needs and make judgements about the appropriate course to follow. For example, the torque specification on nuts and bolts on a flange will be prescribed, but how the mechanic achieves that torque might be left to his or her competent judgement.

Generally, organisations have arrangements which more or less follow the above framework and set out the associated responsibilities. However, the processes for gaining assurance that all delegated responsibilities are being discharged effectively are frequently weak, less well defined or not addressed at all. At best there is an assumption that people will follow procedures with confirmation being achieved through performance outcomes and audits. At worst, once the policy has been set there is no regard to how well it has been interpreted and implemented and no process for gaining assurance. Generally there is reliance on performance results and trends in these results for assurance and decision making. Such measures give no real information that policies and procedures are being followed. They can inform when they are failing but only as a consequence of accident statistics. For effective delegation there needs to be a matching scheme of assurance, as illustrated in Diagram 4, that informs each supervisory layer about actual practice and how well processes, policies and

procedures are being followed and how learning is being applied.

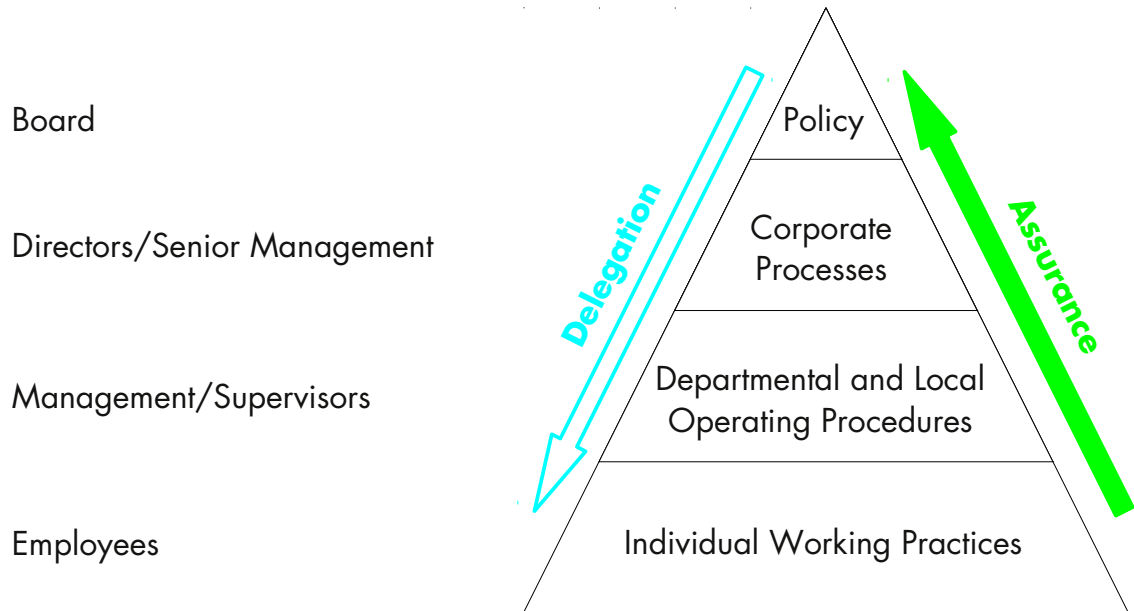


Diagram 4 - Assurance Framework

Without clear, explicit and effective provisions for assurance the delegation process cannot be complete. At each organisational level and role the 'supervisor' should be explicitly clear about:

- the responsibility delegated to that position;
- the responsibilities delegated to subordinate levels;
- the assurance process by which the 'supervisor' will know that the delegated responsibilities are being properly discharged.

For example, if you are responsible for the effective operation of the 'permit to work' system in your 'plant' but have delegated the day to day operation of the system to shift supervisors, what is your assurance process? Is it simply recording the number of times incidents happen due to permit to work failures? This runs the risk that one of those incidents could be catastrophic. It might be that you physically inspect a sample of permits issued. That is an improvement but still tells you nothing about how the permit requirements are being practised. Perhaps you physically inspect the working area. That is a further improvement, but if you inspect the area during a lunch break you might see that the general precautions are in place but you gain no information about the actual working practices being pursued. It was uncovered during the Piper Alpha inquiry that the platform manager physically inspected the platform in the evening when no maintenance work was being carried out. The other responsibilities imposed on him made it difficult for him to inspect the platform during normal working hours⁶. Consequently, although his assurance process included physically inspecting the platform, it was ineffective because it was carried out at the wrong time.

There are two critical complementary parts for achieving effective assurance. firstly the process itself must have integrity and secondly it must be executed competently. This implies that the process has been subject to review by competent individuals and secondly that the persons delivering and receiving the assurance have appropriate knowledge and experience for those aspects as well as the other parts of their roles. The subsequent parts of this toolkit provide frameworks and processes for addressing the 'scheme of delegation' and 'assurance' issues that are critical components of a high integrity SHE

⁶ Piper Alpha Platform fire, 6 July 1988 <<http://www.fabig.com/Accidents/Piper+Alpha.htm>> & <<http://www.tsoshop.co.uk/bookstore.asp?Action=Book&ProductId=9780101131025>>

environment in an organisation.

6 Assurance Environment

To provide a context for the scheme of delegation and assurance framework, Section 6.1 provides some key questions to address and Sections 6.2 and 6.3 describe sources of background information to help the development of your personal environment.

6.1 Key questions to address

Schedule 1 provides a summary of typical questions from the police and/or Health & Safety Inspectors you might have to face under caution following a major incident or fatality. A more comprehensive listing is provided in Appendix 2 and a template is provided in Appendix 5 for your answers. This provides a benchmark against which you can judge how well you would be equipped to respond.

The Police or Inspector's Questions	Rationale
How is your company organised to implement its Safety, Health & Environmental Policy?	To uncover how well you understand the organisation, roles and responsibilities. What are the processes at work?
What is your role in the company?	To ascertain exactly what has been delegated to you and specifically you SHE accountabilities.
What are your qualifications for the role and what training/education have you had particularly with regard to its SHE impact?	Can you demonstrate that you have the knowledge and experience to properly discharge your delegated responsibilities particularly with regard to SHE?
Explain to me your role in safety management in the company and how do you discharge your SHE accountabilities?	What actually do you do and do you understand the impact of your role on SHE outcomes? Do you understand the SHE risks you are managing?
To what extent could you have foreseen this incident and what SHE information do you receive, how do you know that it is valid and what do you do with it.	What kind of information do you receive? Do you understand the assurance process behind the information? What actions do you take as a consequence of the information? Was this an accident waiting to happen?
How do you know that procedures are adequate, that they are understood and the employees are able to apply them?	What is the process for producing, validating and reviewing procedures? What is your process for knowing how well the resources in your team understand the procedures and are able to apply them?
How do you know the company/local procedures are being followed?	What is your own assurance process? How do you really know that what should happen does happen?
What are the mechanisms for feedback?	Is there an open and constructive environment? What are the whistleblowing arrangements?
What else should I know?	How else can you demonstrate that there is a management process that delivers a high integrity SHE outcome?

In summary the key points to address to create an effective assurance environment are:

- Does the Safety, Health & Environmental policy give clear direction?
- Is there a scheme of delegation for Safety, Health & Environment accountabilities to cover my role and is it understood?
- Are my responsibilities for Safety, Health & Environment explicit and clear?
- Do I have all the necessary knowledge and experience for my accountabilities? What specific training do I need?
- How do I know what I don't know?
- What is my process for 'learning from experience' (internal and external)?

- How do I anticipate risks and learn before rather than learn after incidents?
- What information do I need to discharge my accountabilities, where do I go for such information and how is it validated?

6.2 Learning from experience

There is an opportunity to learn from all incidents. Incidents occur due to failure of processes, equipment, procedures or people and the experience from incidents have already established the underlying reasons for all future incidents. Learning from experience (LFE), develops knowledge about the reasons and circumstances that cause good practice to be ignored.

LFE also provides an excellent process for developing the knowledge of new supervisors and managers. It should be a fundamental component of developing competence in any organisation. Particular care should be taken to inform temporary workers about past experience relevant to their role and to uncover experience from a different sector which is not relevant and potentially detrimental. Finally, LFE of incidents in your organisation and from elsewhere is vital for complete risk assessments.

The case studies provided in the IChemE Loss Prevention Bulletin and by the HSE⁷ have been identified as illustrating the importance of the technical assessment criteria in preventing, controlling or mitigating major accidents. Each of the case studies provides a brief description of the accident and a summary of the technical measures that were missing or not implemented properly.

6.3 Learning from major incidents

In recent history there has been a number of high profile major incidents in the UK each of which has caused significant numbers of fatalities and serious injuries. They have exposed individuals and companies to prosecution and have influenced legislation and regulatory behaviour. They include:

- Piper Alpha North Sea platform fire⁸
- Hickson & Welch fire, 21 September 1992⁹
- Chemical release and fire at the Associated Octel Company Limited, Ellesmere Port, Cheshire, 1 February 1994¹⁰
- Hatfield rail crash, 17 October 2000¹¹
- Herald of Free Enterprise ferry sinking¹²
- Lyme Bay canoe tragedy, 1993¹³

They serve as clear reminders of the outcomes when management systems fail. They also provide

7 Case studies illustrating the importance of the technical assessment criteria in preventing, controlling or mitigating major accidents. <<http://www.hse.gov.uk/comah/sragtech/casestudyind.htm>>

8 Piper Alpha Platform fire, 6 July 1988 <<http://www.fabig.com/Accidents/Piper+Alpha.htm>> & <<http://www.tsoshop.co.uk/bookstore.asp?Action=Book&ProductId=9780101131025>>

9 The fire at Hickson & Welch Limited, Castleford. 21st September 1992 <<http://www.hse.gov.uk/comah/sragtech/casehickwel92.htm>>

10 The chemical release and fire at the Associated Octel Company Limited, Ellesmere Port, Cheshire. 1st February 1994 <<http://www.hse.gov.uk/comah/sragtech/caseoctel94.htm>>

11 Hatfield rail crash, 17 October 2000 <<http://www.rail-reg.gov.uk/server/show/ConWebDoc.8190>>

12 Herald of Free Enterprise Ferry Sinking, 6 March 1987 <http://www.maib.gov.uk/publications/investigation_reports/herald_of_free_enterprise.cfm>

13 Lyme Bay Canoe Tragedy, 1993 <<http://www.aals.org.uk/lymebay01.html>>

learning which if taken account of and adopted in corporate and personal practice will reduce exposure to incidents and their consequence.

Some key messages from these incidents are:

Policy issues

- Ensure that any incentives and the working environment do not conflict with SHE objectives and preferably support those objectives.
- There should be a culture of listening, two way communication and acceptance of human error such that whistleblowing is a course of last resort. However such whistleblowing arrangements should be agreed by all parties and be effective.

Process issues

- Ensure business pressures do not impair critical safety management activities and prevent inspections being carried out by local line managers.
- There should be a well developed and validated Risk Register with a clear understanding of the precursors of SHE risks and their mitigation. Management processes and actions should explicitly address those risks and provide assurance that the control processes are effective.
- There should be clear processes for learning from experience and the adoption of best practice.

Procedural issues

- Carry out line management inspections at appropriate times and in ways that are designed to provide the assurances sought.
- Ensure employees have received, understand and have demonstrated their competence to manage the risks.
- When outsourcing work to contractors, the company remains responsible for SHE.

Practice issues

- Management and employees should understand how their individual contributions achieve the SHE outcomes sought.

A detailed listing of major incident investigations in the UK is provided in Appendix 8 and details of UK prosecutions can accessed at the HSE website¹⁴.

Whilst this first issue of the toolkit uses UK incidents as examples, it is hoped that readers based outside of the UK will provide other examples to enrich the international appeal of the toolkit. The booklet, *100 Largest Losses 1972 - 2001*¹⁵, describes a diverse global range of large property damage losses in the hydrocarbon-chemical industries. However, the principles set out in this toolkit have universal application.

6.4 Contractors

Companies retain the responsibility for the hazards in their activities whether work is carried out by their own resources or contracted out resources. The contractor should be treated just as any other subordinate in the company; there should be clear and unambiguous delegated responsibilities, accountabilities and an effective assurance process in place. A company, its executives and managers

14 HSE Public Register of Convictions <<http://www.hse-databases.co.uk/prosecutions/>>

15 The 100 Largest Losses in the Hydrocarbon Industries - Large Property Losses in the Hydrocarbon-Chemical Industries, 21st Edition: 2009 <http://www.marshriskconsulting.com/st/PDEv_C_371_SC_228136_NR_306_PL_234871.htm>

must be satisfied that effective procedures are in place to meet their SHE policy requirements and be satisfied that they are working. Full account should be taken of the contractor attitude to the relationship; long term partners might have a high level of commitment to their customer, although long term relationships can lead to complacency.

Short term contractors might have a different attitude to SHE and might not be adequately resourced to meet the company's policy requirements. This requires vigilance and explicit assurance arrangements to ensure continued integrity in the management of the hazards involved. Of particular concern, are emergency/unplanned activities involving contractors.

Managers should develop and establish in advance the procedures to be followed in these circumstances so that responsibilities, accountabilities and the associated assurance regimes are well established.

6.5 Outsourcing operations

Many companies have outsourced activities to lower cost regions. In responsible companies, corporate SHE policy applies wherever and however it chooses to operate. There are notable examples of the adverse impact on image and business continuity and on financial and human resources where companies have sought to take advantage of lower local standards than good practice would require. Such penalties can easily exceed the perceived original benefits. Practising professional engineers will want to ensure that the objectives and standards contained in company SHE policies are met wherever operations are carried out.

However, the means by which those outcomes are achieved need to take account of local practices so that assurance about the integrity of operations can be achieved to the same standard as in the home territory.

7 SHE Risk Register

The business risk register should be the driver for good corporate governance. All companies have risks to manage; their identification and effective control makes good business sense and is a fundamental component of the assurance process. A corporate risk register will cover all aspects of business risk including upsides (missed opportunities) as well as downsides (losses). In the context of safety, health and the environment, risk is the combination of the severity of harm arising from a hazard with the likelihood of it happening. A 'SHE Risk Register' should list such risks and their mitigation. An example is provided in Schedule 2. Note that the register is not complete until it has been validated by for example subjecting it to independent peer review. It will only be effective if there is a process for assuring that all controls are working.

The level of detail required should be sufficient to ensure that all risk areas are identified appropriate to the position in the organisation but not in so much detail that the list is unmanageable. A maximum of 12 – 15 risks is suggested. A useful model for identifying and assessing risks is the 5 step model of risk assessment published by the HSE¹⁶ as follows:

Step 1. Identify hazards

Step 2. What is the impact (who or what might be harmed/damaged)?

Step 3. Evaluate the risks and decide whether existing arrangements are adequate or whether more should be done.

Step 4. Record your findings

Step 5. Review your assessment and revise if necessary.

For an operations role these might include:

- failure of permit to work procedures;
- plant operated outside its safe operating envelop;
- equipment integrity falls below minimum specification;
- failure of communications;
- inadequate resources.

These examples should enable you to identify the specific risks for which you are accountable.

Another important approach to risk management and risk elimination is to develop/introduce inherently safe processes. These can simplify the management task as well as achieve a significant risk reduction. Such an approach to risk reduction should be considered and pursued whenever possible¹⁷.

As well as corporate risk management, individuals are exposed to risk wherever they are working. Understanding your own exposure to risk, particularly when working away from your normal base or in transit, makes good sense for your own protection. A quick personal risk assessment might save you from harm.

16 five steps to risk assessment leaflet <<http://www.hse.gov.uk/pubns/indg163.pdf>>

17 The INSET Toolkit <http://www.icheme.org/communities/subject_groups/safety%20and%20loss%20prevention/%7E/media/493E057A897B4C8EAD13ADA4C2E1F7F8.pdf>

A hypothetical example of a risk register

Risk Register and Action Plan		'XYZ' Business/Site						Author:	Date:	
No	Description of Risk				Impact	Manageability/ Level of Control	Current Risk Action Type	Proposed Mitigation/Risk Reduction Action (Identify immediate actions, longer term solutions and early quick wins)	Action by	Action by date
	Hazard or Occurrence	Consequence	Existing Controls	Likelihood						
1	Rapid turnover of staff through internal moves and/or recruitment	Rapidly changing population, unaware of hazards	Career planning process, appointments impact review	H	M	3	Pro	Review whole induction programme		
2	Lack of awareness of hazards and risks	Unsafe behaviours lead to accidents	Training and audit program	M	M	4	Pro	Behavioural HSE training. Foster an environment that encourages employees to spot and report process defects and opportunities for improvement		
3	Failure of process equipment	Material release and/or explosion	Modification control process Equipment inspection programme Maintenance QA process	L	H	5	Pro	Inspection programmes Maintenance quality control		
4	Poor housekeeping	Harm to individuals, possibly serious injury	Management site audit programmes	M	H	3	Pro	Employee awareness programme Management walkabout programme		
5	Major loss of utilities	Loss of external power, gas or water supply leads to immediate plant closure creating a hazard to employees, public and the environment.	Emergency backup supplies. Process review of services failure/failsafe review.	L	H	4	Pro	Monitoring of site utilities Review of backup arrangements Review of plant fail safe arrangements		
6	Environmental incidents	Contamination of ground, water and/or air	Containment process and procedures	L	H	4	Pro	Check all plant environmental protection arrangements are active Biannual review		

Risk Register and Action Plan		'XYZ' Business/Site						Author:	Date:		
No	Description of Risk				Impact	Manageability/ Level of Control	Risk Action Type	Proposed Mitigation/Risk Reduction Action (Identify immediate actions, longer term solutions and early quick wins)	Action by	Action by date	
	Hazard or Occurrence	Consequence	Existing Controls	Likelihood							
7	Permit to work procedure not followed rigorously	Release of hazardous materials leading to fatality or serious injury, damage to plant and equipment, damage to the environment.	Authorised persons. Sample audits Manager vigilance	L	H	5	Pro	Training programme for managers, supervisors and employees On the job inspections by managers Inspection sample reports			
8	Release of hydrocarbon, toxic or radioactive materials from 'abc' plant	Hazardous materials and unsafe conditions cause harm to employees and the public and damage to plant and equipment and the environment.	Containment process and procedures	L	H	5	Pro	Plant and equipment inspection programmes Plant procedures validation Major emergency plan, practice and relationship with emergency services			
9	Security breaches	Bomb threat leading to evacuation	Site access controls Perimeter security systems being installed	M	H	3	Mon	Bomb threat procedure and telephone questionnaire. Public address system. Building evacuation exercises			
		Terrorist attack	Visitor access controls Vehicle deflectors at all access points planned	L	H	1	Inv	Major emergency plan contact with police/security advisors			
10	Failure to identify hazard	Loss of assets, fatalities and injuries, environmental damage	Peer group reviews LFE programme	L	H	4	Pro	Ensure effective process deployed for risk assessment and involvement of experienced resources. Peer review of risk register			

Legend

- Likelihood: In assessing likelihood form a view on the effectiveness of the existing controls. Be clear about what evidence exists for that view; if in doubt score at a higher likelihood rating.
L = low (0%-10%);
M = medium (10%-30%);
H = high (>30%)
- Potential Impact ranges: L = low: first aid injury; ~£100,000; no reputation loss;
M = Medium: Minor injuries, £0.1-1 million, local reputation issue;
H = high: major injuries, £1-5 million, group reputation issue;
VH = very high: fatality, >£5 million, international reputation issue.
- Manageability/level of control: On the basis of the previous assessments determine the existing level of control and exposure to the risk.
Mark on a scale of 1 to 5 where 1 = poor level of control and 5 = high level of control with all underpinning process in place.
The lower this rating the higher the exposure to the risk and the higher the need for immediate action. Such action would normally comprise short term temporary arrangements and longer term permanent solutions.
- Action type: Pro. = Adopt a pro-active mitigation policy.
Mon. = monitor the risk andlor its cause.
Inv. = investigate to identify best mitigating action.

This register is not complete until validated. How has this been achieved and how good is the validation?	
What is the process for assuring that existing controls and new controls are working?	

8 Self-assessment of Role Impact on SHE

The Engineering Council and The Institution of Chemical Engineers set out duties and conduct of Chartered Engineers and Corporate Members respectively. Extracts are provided in Appendix 3. It is vital that individuals are aware of their own limitations and the extent of their competence and experience. Decisions should be made within one's own level of competence. Technical competence and expertise is not required at all levels; everyone does not have to be a technical expert but technical expertise needs to exist in the organisation or be accessible so that technical decisions can be made. Such delegated decision making should be valued and taken into full account in making overall business/management decisions.

Continuous professional development (CPD) depends on an objective and validated assessment of your competencies and the needs of your current or next role. You would expect an airline pilot's competence to be fully and regularly validated. There is no difference for your role. Be aware that what you don't know you don't know and this can affect the quality of your judgements and actions. You should consider how you might achieve peer review of your competence, achieve 'sign off' from your supervisor and establish mentoring arrangements as part of your CPD. Further, when appointing individuals to roles you need to be assured about their competence and establish appropriate mitigation arrangements to cover any deficits until any competence shortfalls are satisfactorily closed out (see also Section 9).

The benchmark test questions hopefully give you food for thought about how you practise your role and how it impacts on the SHE standards and performance. They start to develop further the issue of how assurance is obtained and provided. However, before that is developed through the Scheme of Delegation described in Section 10, it is useful to develop an understanding of the actions and behaviour that are appropriate for different types of role in the organisation. The schedules in Appendix 4 provide a self-assessment questionnaire to assist you in clarifying key SHE responsibilities of your role and the appropriate behaviour that might be followed. This is not an exhaustive schedule but provides the basis for your own thinking, discussion with those around you and assessment. Clarity about your role and its impact on SHE standards and outcomes will facilitate development of the scheme of delegation. Of critical importance is leadership style and behaviour. A key indicator of a healthy SHE culture is whether employees and management have the same perceptions and beliefs about how important SHE is to the business and what needs to be done. A leaflet published by the HSE provides a summary of key leadership principals¹⁸. Any assessment of leadership style is best achieved by 360° feedback.

18 Leadership for the major hazard industries - Effective health and safety management
<<http://www.hse.gov.uk/pubns/indg277.pdf>>

9 Risk Management Competence

Effective risk management depends on the competencies of the organisation as a whole, of groups or of individuals. The necessary experience and knowledge must be available to enable risks to be identified and understood and for effective mitigation/control measures to be established. A conscious assessment of competence should be carried out; a simple assessment tool is illustrated in Diagram 5. It can be an effective way to identify the capabilities of you and your team to manage the risks for which you are responsible.

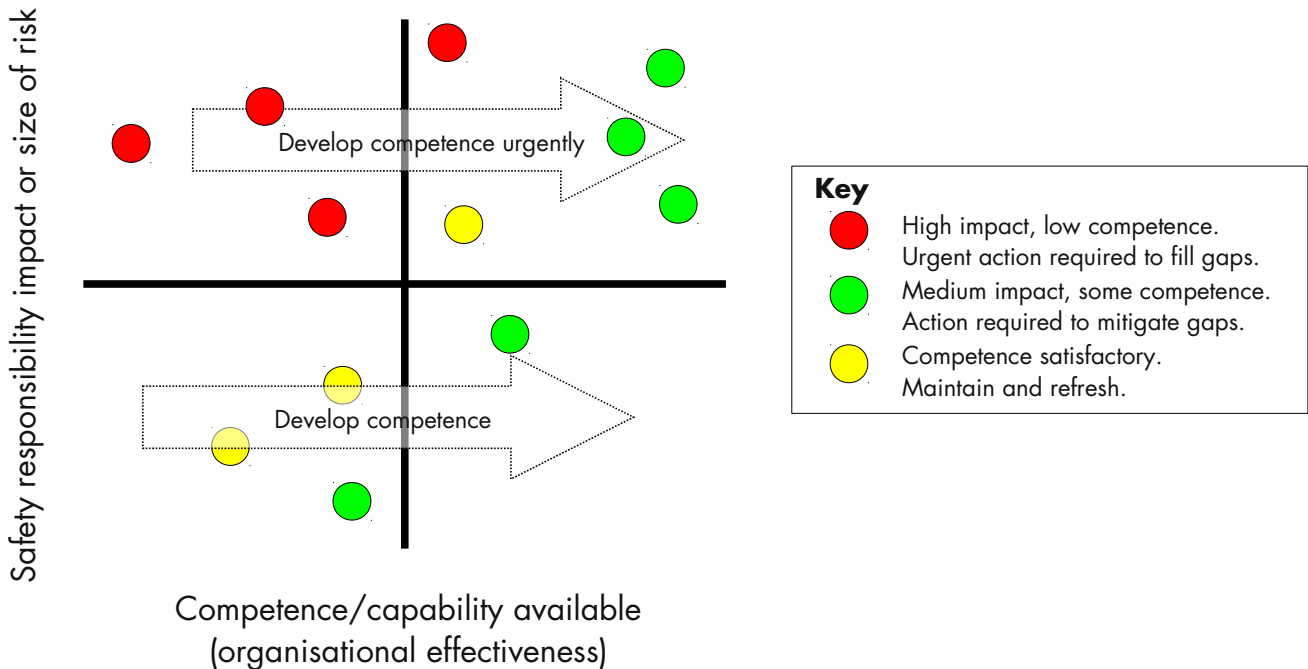


Diagram 5 – Organisation, team or personal safety risk management exposure

For each SHE risk issue in your delegated portfolio/risk register, assess your competence/ability or your organisation's effectiveness at managing that issue. It can be helpful to carry out this assessment by involving a cross section of your team or by an independent assessment; this can help minimize the impact of your ignorance because of what you don't know. The assessment must be based on the availability of relevant and demonstrable knowledge and experience. The objective is to develop competence so that there are no red assessments. In the example above immediate action would be required to deal with the gaps in competence for management of some of the high risk issues.

Use the assessment to identify priority actions for improvement, establish an action plan and drive it forward as an improvement project.

It is critical that a similar approach is used as part of any organisation change/restructuring process. As people are changed as a consequence or as part of normal development and succession processes assessment of competence to manage the risk portfolio must be carried out.

10 Scheme of Delegation for SHE Management

Diagrams 3 and 4 illustrated the process of responsibility delegation and the matching assurance hierarchies. Whether or not there is an explicit corporate scheme of delegation framework, individuals can use these principles to clarify and confirm their own responsibilities, their accountabilities and assurance processes. The process so far should have helped you clarify your responsibilities and specific accountabilities for SHE. It should also help the understanding of the relationship of your role with those around you. At least for your part of the organisation there should now be an explicit understanding of your impact on SHE. This process should assist and inform you about what has been delegated to you, what you have retained and what you have delegated to others. It can be used to achieve explicit agreement with superiors, subordinates and peers about your accountabilities. However, the process is not complete without an understanding and definition of the assurance process that will enable you and others to know that the control environment is achieving the desired outcomes. This requires that for each accountability there are clearly defined means by which assurance is delivered. The scheme of delegation framework, Schedule 3, should now be completed; once completed, it will provide a comprehensive understanding of the relationship between delegated responsibilities, accountabilities and assurances. Each organisation is different. There are no right or wrong answers. The most important point is that it is meaningful for you and your colleagues. An example of a partially completed framework is provided in Appendix 5.

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
	List the risk management issues that I am responsible for. Understand the responsibilities of my supervisor from which my responsibilities are derived. For each issue complete the columns to the right.	Identify why I have those responsibilities	How will I discharge the responsibilities? Which parts will I delegate to others and why? (Note their framework will fit back to back with mine.) What are my explicit accountabilities?	Me	What do I have to do to discharge the accountability?	What are the outcome measures that will demonstrate my performance?	How will I provide assurance to my supervisor that the delegated responsibility is under effective control. What information is needed?
				Subordinate	Agree how he/she will discharge their delegated accountability.	What are the outcome measures that will demonstrate their performance?	What will be the process by which I will be assured that the delegated responsibility is under effective control? What information will I need? What will be process for validating the information?

Explanations for each heading are provided below.

Once the scheme of delegation has been completed, test its integrity by checking that the questions in Section 6.1, Schedule 1 or the longer list of questions in Appendix 2 have been satisfactorily addressed. There might be a number of issues that now need to be actioned. Assess the levels of exposure and prioritise the actions. Develop a balanced action plan, for example deal with some quick wins to reduce the exposure and build confidence, and deal with the highest exposure as a matter of priority. The action plan, the process for implementation and progress review will reduce risk and reduce exposure. It will be clear evidence of a responsible and professional approach.

SHE Scheme of Delegation Heading explanations

Column 2, 'What has been delegated to me?'

This might include such headings as:

- asset integrity,
- permit to work process,
- plant operating performance,
- resource management, recruitment, competence, performance management,
- bought in services,
- health and safety of people in my team.

They might be grouped under the headings:

- people
- plant
- procedures

Column 3, Identify key aspects. Why

Identify why I have that responsibility. Why does it fit with my role?

Column 4, Discharge of responsibility. How

Explain how you will discharge the responsibility and what you will delegate to others. What are your explicit accountabilities? Note that in column 8 you will describe the assurance process you require for those delegations to others.

Column 5, Ownership. Who

Explain clearly who owns which accountability. This must be unique individuals or specified roles for which there is an up to date schedule of named persons.

Column 6, Actions necessary

What has to be done to discharge the accountability?

Column 7, Critical success factors

What are the outcome measures that demonstrate discharge of the accountability? This will comprise a mix of input measures and output measures.

Column 8, Assurance process and Information

This should set out how you will provide assurance to your supervisor that the delegated accountability is under effective control.

It will also describe the information to be provide and that will be achieved, for example daily, weekly,

monthly, quarterly reports and audit reports. Your supervisor should have other means by which he/she will test the integrity of your assurances.

It will also set out how you will receive assurance from subordinates or others to enable you to be assured about delegated responsibilities. You should also define how you will satisfy yourself about the integrity of that assurance information.

11 Overall Outcome

The objective of this toolkit is to help individuals ensure that they know what they have to do to protect themselves, their colleagues, their enterprise and third parties from exposure to the serious consequence of major incidents. There are no short cuts to achieving a clear and unambiguous understanding of responsibilities, accountabilities and the associated assurance processes.

By following the structured process in this toolkit and applying the learning and actions is what a competent person would be expected to do. If an entire organisation develops the SHE scheme of delegation and implements the consequential actions and assurance arrangements then it will have mitigated its exposure to serious incidents.

12 Other useful reading

1. Directors' and Engineers' Responsibilities for Safety– A Cautionary Tale. Brian Harris, IChemE Loss Prevention Bulletin Issue 172, August 2003.
2. Human Factors: Managing Human Performance. HSE Website <http://www.hse.gov.uk/humanfactors/comah/toolkit.htm>.
3. Getting HSE Right– A Guide for BP Managers http://www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/G/Getting_HSE_right_A_guide_for_BP_Managers_2001.pdf.
4. Learning to fly: Practical Knowledge Management From Leading and Learning Organizations by Chris Collison, Geoff Parcell <http://www.amazon.co.uk/exec/obidos/ASIN/1841125091/qid%3D1130924920/026-6102716-3967658>.
5. Director's Responsibility for Health & Safety, Professor Frank B Wright <http://www.hse.gov.uk/corporateresponsibility/research/reviewsalford.pdf>.
6. Reducing Risks, Protecting People. HSE Publication <http://www.hse.gov.uk/risk/theory/r2p2.pdf>.
7. Key Practical Issues in Strengthening Safety Culture. A Report by the International Nuclear Safety Advisory Committee http://www-pub.iaea.org/MTCD/publications/PDF/Pub1137_scr.pdf.
8. Practical Loss Control Leadership, Frank E. Bird and George L. Germain, ISBN 0-88061-054-9, Published by Institute Publishing, USA.
9. Industrial Safety is Good Business– The DuPont Story, 1995, Mottel et al., John Wiley & Sons, ISBN 0442018428.
10. Occupational Health & Safety Management Systems: 2000, British Standards Institution, ISBN 0580331237.
11. Step Change in Safety– Changing Minds, Produced by UKOOA http://step.steel-sci.org/publications/publications_download_fs.asp?intID=3&intRec=63&txtTitle=Behaviours.

Appendix 1. Extract from the Turnbull Report

The Turnbull Report¹⁹ states in Principle D.2 of the Code:

“The board should maintain a sound system of internal control to safeguard shareholders’ investment and the company’s assets.”

A working party on Internal Control chaired by Nigel Turnbull examined Principle D.2 and the associated provisions and produced a report²⁰.

The following sections of this report refer to the management of risk and are particularly relevant to the oil and chemical industries:

“10. A company’s system of internal control has a key role in the management of risks that are significant to the fulfilment of its business objectives. A sound system of internal control contributes to safeguarding the shareholders’ investment and the company’s assets.”

“It is the role of management to implement board policies on risk and control. In fulfilling its responsibilities, management should identify and evaluate the risks faced by the company for consideration by the board and design, operate and monitor a suitable system of internal control which implements the policies adopted by the board.”

“19. All employees have some responsibility for internal control as part of their accountability for achieving objectives. They, collectively, should have the necessary knowledge, skills, information and authority to establish, operate and monitor the system of internal control. This will require an understanding of the company, its objectives, the industries and markets in which it operates, and the risks it faces.

When reviewing reports during the year, the board should:

Consider what are the significant risks and assess how they have been identified, evaluated and managed; etc.”

All material from the Turnbull Report has been reproduced with the kind permission of the UK financial Reporting Council.

For further information please visit www.frc.org.uk or call +44 (0)20 7492 2300.

19 “The Combined Code of the Committee on Corporate Governance”, Institute of Chartered Accountants in England and Wales

20 “The Internal Control: Guidance for Directors on the Combined Code”, The Institute of Chartered Accountants in England and Wales, 1999, ISBN 1 84152 010 1

Appendix 2. Benchmark Test Questions

Questions	Rationale
How is your company organised to implement its Health & Safety Policy?	To uncover how well you understand the organisation, roles and responsibilities. What are the processes at work?
What is the relationship between your department/section/group and the company?	What is the level of delegated authority and local decision making? To what extent is there a real dialogue between levels to understand and gain assurance?
If you are a director of a subsidiary company, what is the relationship between the subsidiary and the parent group?	How does the group impact the management environment? What is the level of intervention? Where is the 'corporate mind'?
If you are a director, how does the Board of the company operate?	How does the Board approach its responsibilities with regard to Health, Safety and the Environment? What evidence is there that the Board receives adequate assurance information so that it knows that its policy is being effectively applied?
What is your role in the company and what does it entail?	To ascertain exactly what has been delegated to you and specifically your HSE accountabilities.
What are your qualifications for the role?	Can you demonstrate that you have the knowledge and experience to properly discharge your delegated responsibilities particularly with regard to HSE?
Who appointed you to the role and how was this done?	A component of understanding whether a proper process was followed to ensure that appointments are made by competent persons and that proper assessment of relevant knowledge and experience was carried out
What training/education have you had for this role particularly with regard to its HSE impact?	Is training considered in the management process? Is there a process for learning from experience? Is there a process for updating knowledge? Is there a process for acquiring best practice?
Explain to me your role in safety management in the company?	Do you understand the impact of your role on SHE outcomes? Do you understand the SHE risks you are managing?
Why didn't you anticipate this accident, or if you did what action did you take?	What is the level of awareness and understanding of the risks being managed? What is the risk management process and is it working?
How do you discharge your SHE accountabilities?	What actually do you do? How does it impact the SHE risks you are managing? Are your actions effective?
What HSE information do you receive?	What kind of information do you receive? Is it relevant to your role? How does it inform you about your delegated responsibilities?
What do you do with the information?	What actions do you take as a consequence of the information? Are you using the information to discharge your responsibilities? Are you using it to inform others/provide assurance?
How do you know the information is valid?	Do you understand the assurance process behind the information? What do you do to validate the information by your testing? What other assurance processes exist to give you confidence about the information?
How do you know the procedures are adequate?	What is the process for producing, validating and reviewing procedures?
How do you know the procedures are understood?	What is your process for knowing how well the resources in your team understand the procedures and how they impact the SHE outcome.
How do you know people are able to apply the procedures?	What is your process for validating that people in your team have the experience, knowledge and ability to apply the procedures?

Questions	Rationale
How do you know the company/local procedures are being followed?	What is your own assurance process? How do you really know that what should happen does happen?
You have told me about audit processes and their findings. How do you know that agreed actions are properly closed out so that the desired outcome is being achieved?	How good is the continuous improvement process? How well are critical improvements achieved?
What do you know that others should be asking for but they haven't asked and you haven't told them?	How good are the relationships? What type of behavioural environment exists?
What are the mechanisms for feedback?	Is there an open and constructive environment? What are the whistleblowing arrangements?
How do you know that knowledge is getting to the right places and that action is being taken?	How good are the communication and follow up processes?
What else should I know?	How else can you demonstrate that there is a management process that delivers a high integrity HSE outcome?

Appendix 3. Extracts from The Engineering Council Charter and IChemE By-Laws

The Engineering Council

A Royal Charter established the Engineering Council in 1981 and one objective was:

“. . . to advance education in, and to promote the science and practice of engineering (including relevant technology) for the public benefit and thereby to promote industry and commerce. . . ”

The Engineering Council seeks to achieve this objective by a number of aims including:

- Increasing awareness of the essential and beneficial part engineering plays in all aspects of modern life.
- Spreading best engineering practice to improve the efficiency and competitiveness of business.
- Advancing engineering knowledge through education and training.

These aims are achieved in a number of ways including:

- Stressing the need for a proper balance between efficiency, public safety and the needs of the environment when carrying out engineering activities.

Chartered Engineers, Incorporated Engineers and Engineering Technicians registered with the Engineering Council undertake a duty to the community under the 'Code and Rules of Conduct', Rule 1:

“A registrant shall at all times and in all aspects:

(a) take all reasonable care to avoid creating any danger of death, injury or ill-health to any person or of damage to property by any act or omission whilst carrying out his/her work, save to the extent that the creation of such danger is lawfully authorised;

(b) take all reasonable care to protect the working and living environments of himself/herself and others and to ensure the efficient use of materials and resources;

(c) conduct himself/herself so as to safeguard the public interest in matters of safety and health and in a manner consistent with the dignity and reputation of the engineering profession; and

(d) notwithstanding the provisions of any of the Rules or Codes of professional Practice, comply with all laws and regulations applicable to his/her professional work.”

In the Notes for Guidance it is stated:

“The important feature of this Rule [viz. 1(d)] is that more is demanded of the registrant than bare compliance with existing law. Full compliance is required, not only in the letter but also in the spirit. Ambiguities or loop-holes in the law, regulations, etc., must not be exploited in an effort to reduce costs if engineering judgement shows that safety or the environment would be jeopardised as a result. In safety and environmental matters the statutory requirements should be regarded as no more than minima. Even when these requirements have been satisfied, the Council still looks to the registrant to take such further measures as his or her engineering judgement shows to be necessary for securing public safety and preservation of the environment, in accordance with Rule 1.”

Guidelines on Risk Issues²¹ published by the Engineering Council in Section 6, Communications, states:

“Engineers should pay particular attention to effective feedback on incidents and 'near

21 This document is currently being revised

misses', so that lessons can be learned."

The Institution of Chemical Engineers

The Institution of Chemical Engineers was founded in 1922 and incorporated by Royal Charter in 1957. Section 12 (ii) (b) of the by-laws states:

"Every Corporate Member shall at all times so order his conduct as to uphold the dignity and reputation of his profession and safeguard the public interest in matters of safety, health and otherwise. He shall exercise his professional skill and judgement to the best of his ability and discharge his professional responsibilities with integrity."

The Rules of Professional Conduct states in Section 4:

"A member shall take all reasonable care in his work to minimise the risk of death, injury, or ill-health to any person, or of damage to property. In his work, a member shall respect all laws and statutory regulations applicable to the design, operation and maintenance of chemical and processing plant. In addition a member shall have due regard for the need to protect working and living environments, and the need to ensure efficient use of natural raw materials and resources."

More recently on the 20 September 2001 at the Sixth World Congress of Chemical Engineering the 20 organisations representing chemical engineers world-wide signed up to the Melbourne Communiqué. In the field of safety this statement makes the following points:

". . . We are committed to the highest standards of personal and product safety."

". . . We will practice our profession according to its high ethical standards."

". . . We acknowledge both our professional responsibilities and the need to work with others as we strive to meet the challenges facing the world in the twenty-first century."

Appendix 4. Safety, Health and Environment Role Self-Assessment Questionnaire

The templates in this appendix cover a number of generic roles and provide a series of self-assessment questions to help you check that you are making the appropriate contribution to Safety, Health and Environmental risk management in your organisation. They might not fit your organisation but choose the template that most fits your role to help you assess your health, safety and environmental responsibilities. The generic organisation considered is displayed below:

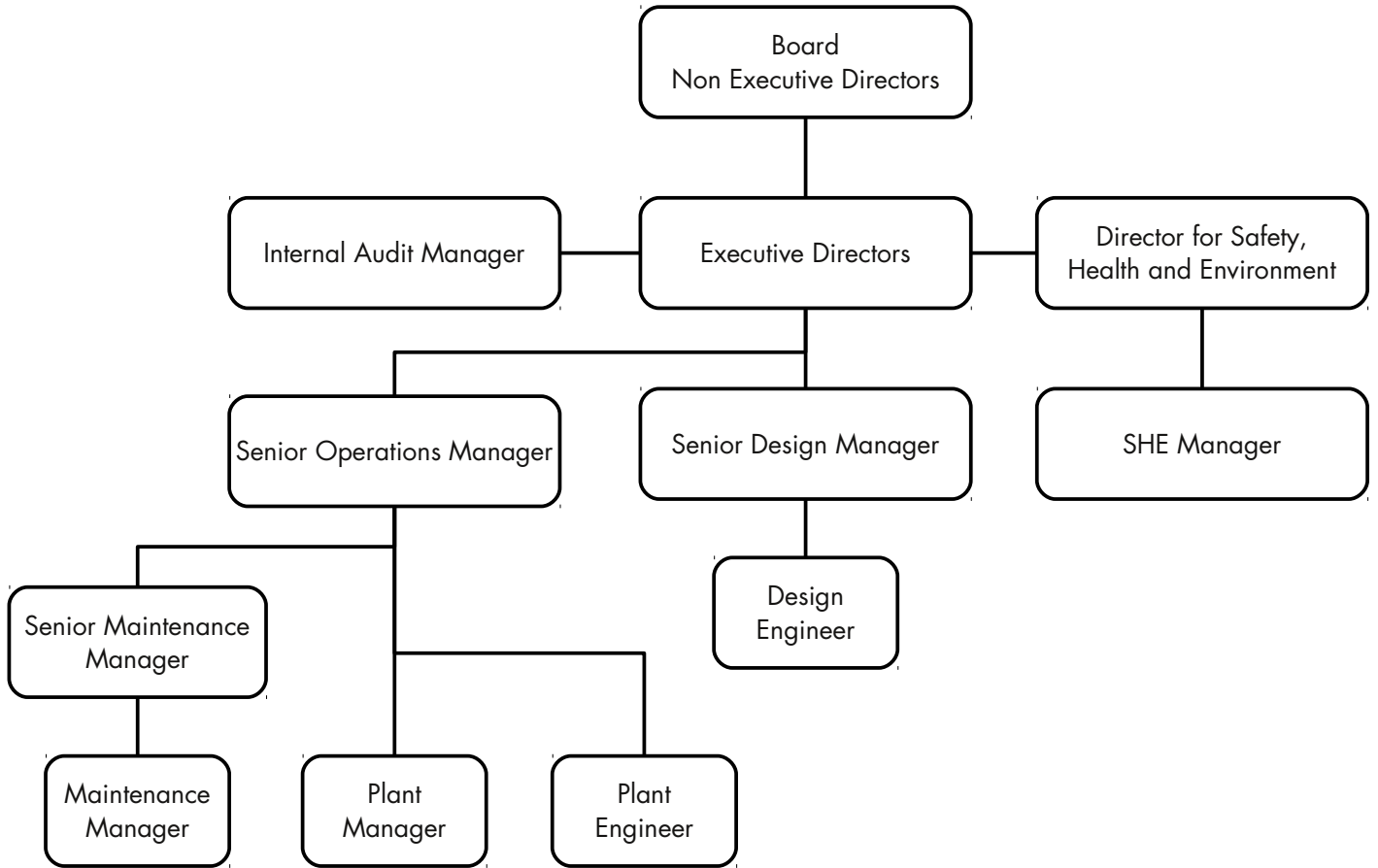


Diagram 6 – Organisation Chart

Non-Executive Director

Issue	Assessment	Action
<p>Safety, Health and Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 6. How is the organisation's SHE culture described in the annual report? 7. How is the organisation's SHE performance and proposed improvements reported in the annual report? What contribution did you make to the report? 		
<p>Safety, Health and Environment Protection Policy</p> <ol style="list-style-type: none"> 1. How have you satisfied yourself that the organisation's Safety, Health and Environmental Protection Policy Statement is comprehensive? 2. How have you satisfied yourself that the organisation's Risk Register is comprehensive and covers all that could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the risk control systems? 4. How have you satisfied yourself that you have a clear picture of what is needed to achieve a high level of safety, health and environmental protection in the organisation? 5. How have you ensured that the organisation's Emergency Plan is comprehensive and meets all of the likely situations that may occur? 6. How have you ensured that the Process Safety Indicators are appropriate? 7. How do you know that the SHE Policy Statement is communicated to all employees including temporary staff? 8. How did you find the Safety, Health and Environmental Protection (SHE) Policy Statement compares with other companies? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How have you ensured that all Board Directors are 		

Issue	Assessment	Action
<p>familiar with and follow the organisation's SHE Policy Statement?</p> <ol style="list-style-type: none"> 2. How have you ensured that what is needed in the organisation to establish a strong safety, health and environmental culture is that which is being promoted in the SHE Policy Statement? 3. How have you been made aware of the processes, procedures and practices adopted to implement the policy of the organisation? 4. How do you ensure that the subjects of safety, health and environmental protection are discussed early at each Board Meeting? 5. How do you ensure that you are knowledgeable of the current safety, health and environment position in the organisation? 6. How do you ensure that you visit plants on a regular basis and mention SHE matters whenever you are able and to a wide range of audiences? 7. How do you make certain that SHE matters is a significant element of performance reviews? 		
<p style="text-align: center;">Board Processes</p> <ol style="list-style-type: none"> 1. How does the Board recognise the risks that the Company may be subject to? Has it established a Risk Register? 2. How has the Board evaluated the risks? 3. How has the Board established the Control Systems? 4. How have you satisfied yourself that the systems established will protect the organisation and are fully established? 5. How have you ensured that the Emergency Plan is comprehensive and have you observed a training session? 		
<p style="text-align: center;">Competence</p> <ol style="list-style-type: none"> 1. How have you satisfied yourself that you have the necessary knowledge and experience in safety, health and environmental protection matters to carry out the work of monitoring the organisation's operation? 2. How have you ensured that you are kept up to date with current thinking on safety, health and environmental protection matters? 3. How have you confirmed that all directors have a goal of continuous improvement in SHE matters? 		
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How have you been satisfied that the responsibility and accountability for design, operations and maintenance of plant and equipment has been properly apportioned in the organisation? 2. How do you view and to whom do you report your comments on the auditing system for safety, health and environmental protection? 3. How are you assured by the Board and the staff of the 		

Issue	Assessment	Action
<p>company that all reasonable risks have been evaluated and covered by control systems to protect employees, the public and the company?</p> <p>4. How do you assure yourself that responsibilities for design, operation and maintenance in the company have been fully recognised by the Board and staff?</p> <p>5. How do you satisfy yourself that all employees are fully accountable for their work?</p>		
<p style="text-align: center;">Communication</p> <p>1. How do you report to the Board on your view of the safety, health and environmental culture and operations?</p> <p>2. How do you ensure that you receive relevant information on the companies operations to satisfy yourself that the company activities are under close Control?</p> <p>3. How are you satisfied that the SHE statement in the Annual Report conveys the true situation?</p>		

Executive Director

Issue	Assessment	Action
<p>Safety, Health and Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors, staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 6. How is the organisation's SHE culture described in the annual report? 7. How is the organisation's SHE performance and proposed improvements reported in the annual report? What contribution did you make to the report? 		
<p>Safety, Health and Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How have you satisfied yourself that the organisation's Safety, Health and Environmental Protection Policy Statement is comprehensive? 2. How have you satisfied yourself that the organisation's Risk Register is comprehensive and covers all that could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the risk control systems and how have you satisfied that it is robust? 4. How have you satisfied yourself that you have a clear picture of what is needed to achieve a high level of safety, health and environmental protection in the organisation? 5. How have you ensured that the organisation's Emergency Plan is comprehensive and meets all of the likely situations that may occur? 6. How do you know that the SHE Policy Statement is visible at all operating areas of the organisation and that it is known and understood by all employees including temporary workers and contractors? 7. How do you know that all personnel are aware of The SHE Policy Statement and that it is: <ul style="list-style-type: none"> • Referred to at training meetings? • Discussed at management meetings? 8. How have you established a policy of working towards 		

<p>inherent safety in new processes and existing processes?</p> <p>9. Is there a written policy on drugs and alcohol covering all staff including temporary workers and contractors and how do you ensure that it is enforced?</p>		
<p style="text-align: center;">Leadership</p> <p>1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you?</p> <p>2. What is your view of the Safety, Health and Environmental Protection culture that you wish to see in the organisation and how does it compare with best practice? How do you know that this desired culture is clear?</p> <p>3. What do you do to ensure that the SHE culture expectations are communicated and understood by employees throughout the company and by any contractor or supplier to the company?</p> <p>4. How have you demonstrated a positive management commitment to safety, health and the environment? For example, have you signed the SHE Policy Statement? What do you do to demonstrate your commitment and support for managers?</p> <p>5. How do you implement the:</p> <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be present? • Plans to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ Manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ Discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside companies? communication with local community, local authorities and emergency services in the event of an emergency? <p>6. How are you assured that responsibility and accountability have been fully established in the organisation?</p> <p>7. How have you established a continuous improvement culture? For example have you established a goal of</p>		

<p>working towards a zero accident performance?</p> <p>8. How does the organisation share and import good practice? For example does it participate in sharing accident information through The Loss Prevention Bulletin, the 'Responsible Care' and other relevant programmes?</p> <p>9. How do you ensure you understand the standards of operation in your areas of responsibility and compliance with the policies? How frequently do you visit all sections to be assured about compliance with the management policy? How well do you believe employees know you and feel able to contact you? Why do you believe that and what evidence do you have?</p> <p>10. How do you ensure that SHE matters are discussed early on the agenda of every management meeting?</p> <p>11. Which SHE meetings do you attend? How do you know this is sufficient?</p> <p>12. How does the Board assess the SHE performance of the organisation? For example is SHE performance on the agenda of each Board Meeting and is there follow up to issues?</p> <p>13. How do you know that the person appointed as SHE manager has the necessary information and resources to carry out his/her work?</p> <p>14. How do you ensure that all of the persons working for you are fully aware of their safety responsibilities, are fully trained for their work and are brought up-to-date to the latest developments in safety and do they ensure safety in their work?</p> <p>15. How do you ensure that safety, health and environment matters are a significant element of performance reviews? How do you satisfy yourself that there are adequate resources to enable them to achieve their objectives?</p> <p>16. How do you demonstrate a commitment to safety and ensure a commitment from others who work for you?</p> <p>17. How do you ensure the implementation of the management systems in every case?</p> <p>18. How do you encourage the sharing of lessons learnt from accidents within as well as outside the Organisation?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (including temporary workers)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury, damage to equipment or the environment? • Controlled work on entry to confined spaces, 		

<p>sources of ignition, high pressure water jetting and maintenance work?</p> <ul style="list-style-type: none"> • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? <p>2. How do you ensure that all work covered by the management systems is properly carried out?</p> <p>3. How are research and development operations controlled to avoid accidents particularly with regard to new developments? How do you check for reactive chemical hazards in new processes? Do you ensure that a check in Bretherick's 'Handbook of Reactive Chemical Hazards' is made?</p> <p>4. How do you ensure that there is no complacency in SHE matters in the organisation?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that your training and experience includes aspects of safety, health and environmental protection required for your role? What is your process for keeping up to date and how well is it working?</p> <p>2. How do you know that each of your subordinate staff has the experience and training for their role? How have you assessed their competence for their role?</p> <p>3. How do you know that employees in your area of responsibility are competent in their roles?</p>		
<p style="text-align: center;">Assurance</p> <p>1. How have you been satisfied that the corporate risk register has been developed to take account of likely events resulting from human and natural mishaps?</p> <p>2. How are you satisfied that there is appropriate mitigation of the defined SHE risks?</p> <p>3. How well has the organisation's internal audit plan developed from the corporate risk register?</p> <p>4. How do you know that there is an audit process in place which provides assurance about the condition of all equipment, the reliability of the processes and the competence of all employees, contractors and suppliers?</p> <p>5. How do you obtain assurance about the effective control of SHE risks in the organisation?</p> <p>6. How do you ensure that lessons learnt in the organisation are shared with outside companies as required in the Responsible Care programme and the</p>		

<p>recommendations of the regulatory bodies?</p> <p>7. How do you ensure that lessons learnt from accidents (both those that occurred within the organisation and those from outside the organisation) are used in new design and operational risk assessment work?</p>		
<p style="text-align: center;">Communication</p> <p>1. How do you ensure that those accountable to you report fully on their work?</p> <p>2. How do you ensure that safety, health and environment matters are raised at each Board Meeting?</p> <p>3. How do you ensure that current safety, health and environment issues raised at the Board level are communicated to all staff?</p>		

Internal Audit Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How has the organisation developed a personal understanding of the influence different levels of management have on the organisational climate? 2. How have the directors and staff ensured a commitment to promoting safety, health and environmental protection amongst all employees including temporary workers and contractors? 3. How has the organisation developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board has recognised that fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you satisfy yourself that the SHE Policy Statement was comprehensive and appropriate to the organisation? 2. How did you audit the company's risk register to satisfy yourself that all reasonably foreseeable risks for safety, health and environment had been covered? 3. How did you check that the risk control systems were suitable and workable? 4. How did you establish that there was a positive commitment to safety, health and environmental protection throughout the organisation? 5. How did you compare the organisation's SHE Policy Statement with similar policy statements of other comparable organisations? 6. How did you ensure that the Policy Statement was of the highest standard and was seen and understood by all employees, including temporary workers and contractors? 7. How did you compare actual operation of the SHE Policy Statement in different departments with the requirements of the policy statement? 8. How did you establish whether there was a continuous improvement in SHE culture at all levels in the organisation? 9. How did you audit the operation of the policy statement in all departments for: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be 		

Issue	Assessment	Action
<p>present?</p> <ul style="list-style-type: none"> • Plans to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ Discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside organisations? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>10. How did you establish whether the organisation shares and import good practice? For example did it supply articles for The Loss Prevention Bulletin or made lessons learnt from accident investigations available to the 'Responsible Care' programme and other relevant programmes?</p> <p>11. How did the organisation satisfy you that they have established a policy of working towards inherent safety in new and existing processes?</p> <p>12. How were you satisfied that there was an effective written policy on drugs and alcohol covering all staff including temporary workers and contractors, and how were you satisfied that it was enforced?</p>		
<p style="text-align: center;">Leadership</p> <ol style="list-style-type: none"> 1. How did you judge leadership in different departments? 2. How did you establish that SHE experience in the organisation was shared with the industry in general? 3. How did you audit the requirement for establishing responsibility and accountability of all staff in the organisation? 4. How did you audit the elements of performance reviews of all staff to ensure that they contain adequate SHE elements? 5. How did you audit the organisation's approach to establishing a sound safety, health and environmental protection culture? 6. How have you audited for compliance the following: <ul style="list-style-type: none"> • Frequent visits of directors and managers to all working areas? • Discussion of SHE matters at meetings of managers? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • SHE performance standards? • Training of all staff, including temporary and contractors, in SHE matters and assessment as competent? • Compliance to the Management Systems? 		
<p style="text-align: center;">Management Systems</p> <ol style="list-style-type: none"> 1. How do you audit the operation of the management systems in all departments for: <ul style="list-style-type: none"> • Management training? • Assessment of competency of staff? • Inspection of all areas? • Risk assessment of all work with the potential for injury, damage to equipment or the environment? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to the employees and to other organisations? • The loading and offloading of road tankers? • Whistleblowing? 2. How did you audit the research and development of new processes and products to ensure that adequate assessment of the potential hazards are established and controlled? 		
<p style="text-align: center;">Competence</p> <ol style="list-style-type: none"> 1. How did you audit and assess as being satisfactory: <ul style="list-style-type: none"> • The qualifications, training and experience of all employees in the organisation? • The assessment of competency in the job? The competency of the contractors employed? 2. How has the Emergency Plan been established? Is there sufficient: <ul style="list-style-type: none"> • Training of all staff including directors? • Control room availability? • Sufficient communicating facilities? • Sufficient staff to man the operation? • Sufficient drawings of plant available in the control room? • Sufficient telephones, computers and other 		

Issue	Assessment	Action
appropriate equipment?		
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How did you make an assessment of the risk register to ensure that it takes into account all the potential hazards? 2. How did you ensure that lessons learnt in the organisation were shared with outside organisations as required in the Responsible Care programme and the recommendations of the regulatory bodies? 3. How did you judge whether lessons learnt from accidents (both those that occurred within the organisation and those from outside the organisation) are used in new design and operational risk assessment work? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How did you audit the system for communications in the organisation for: <ul style="list-style-type: none"> • Accountability? • Discussion of SHE matters at all management meetings? • Changes in policy, management systems and all SHE matters? 		

Director for Safety, Health and Environment

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors, staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 6. How is the organisation's SHE culture described in the annual report? 7. How is the organisation's SHE performance and proposed improvements reported in the annual report? What contribution did you make to the report? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How have you satisfied yourself that the organisation's Safety, Health and Environmental Protection Policy Statement is comprehensive? 2. How have you satisfied yourself that the organisation's Risk Register is comprehensive and covers all that could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the risk control systems and how have you satisfied yourself that it is robust? 4. How have you satisfied yourself that you have a clear picture of what is needed to achieve a high level of Safety, Health and Environment Protection in the organisation? 5. How have you ensured that the organisation's Emergency Plan is comprehensive and meets all of the likely situations that may occur? 6. How have you established Process Safety Indicators and how do you monitor them? 7. In what areas have you established active and proactive indicators? What were the factors that influenced the choice? 8. How have you made sure that the SHE Policy Statement is visible in all areas of the company and that it has been communicated and understood by all staff? 		

Issue	Assessment	Action
<p>9. How have you ensured that all staff, including the Directors, in the organisation understand their own responsibilities in all SHE matters, their accountability and how do they assure you that they are fully in control?</p> <p>10. How do you demonstrate your commitment to a positive attitude to safety, health and the environment?</p> <p>11. How have you established a continuous improvement culture? For example have you established a goal of working towards a zero accident performance?</p> <p>12. How are you sure that all workers, including temporary and contractors, are aware of the SHE Policy Statement and that appropriate operating procedures are in place to give effect to that policy? For example,</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at management meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? <p>13. What is your continuous improvement process and how do you know it is contributing to the corporate goals?</p> <p>14. Is there a written policy on drugs and alcohol covering all staff and how do you ensure that it is enforced?</p> <p>15. How are research and development operations controlled to avoid accidents particularly with regard to new developments? How do you check for reactive chemical hazards in new processes? Do you check in Bretherick's 'Handbook of Reactive Chemical Hazards'?</p>		
<p style="text-align: center;">Leadership</p> <p>1. How do you ensure that the responsibility and accountability for health, safety and environment is maintained for yourself and all members of the staff?</p> <p>2. How have you demonstrated a positive management commitment to safety, health and the environment? Have you understood and endorsed the Policy Statement? What do you do to demonstrate your commitment and support for your managers?</p> <p>3. How do you know that all of the staff understood fully the SHE Policy Statement and are committed to the SHE culture?</p> <p>4. How do you make sure that the following are implemented:</p> <ul style="list-style-type: none"> • The requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • The requirement to carry out risk assessments in all areas where you might consider a hazard may be present? • The plans to prevent terrorists activities? • The management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration 		

Issue	Assessment	Action
<ul style="list-style-type: none"> ◦ process change or alteration ◦ manning change or alteration • The commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ Release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • The commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside organisations? • The communication with local community, local authorities and emergency services in the event of an emergency? <p>5. What do you have to do to ensure that the safety culture objectives are completely achieved?</p> <p>6. How do you ensure that all employees are clear about your expectations, that they follow the SHE policies and management systems? For example, do you demonstrate your commitment at training sessions and in your personal behaviour that you believe in the SHE culture? Do you ensure that all Directors demonstrate their commitment to the SHE Policy? Do you ensure that SHE is discussed at each Board meeting?</p> <p>7. How do you demonstrate by your actions each week that you are dedicated to safety in your actions and words? For example, do you visit all areas on a regular basis to check for compliance with the management policy? Are you well known on the plants and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>8. How do you consistently praise good practices and work and challenge poor performance?</p> <p>9. How do you ensure that safety, health and environment are a significant element of performance reviews? How do you ensure that staff has adequate resources to enable them to achieve their objectives?</p> <p>10. How do you ensure that performance measures show how well the major hazards are being controlled?</p> <p>11. How do you ensure that you discuss SHE issues with all managers, clients and contractors?</p> <p>12. What is your involvement in SHE meetings? Is it on a regular basis?</p> <p>13. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>14. How do you know that your staff is really committed to safety?</p> <p>15. How did you support the staff the last time that operations or maintenance had to be stopped for</p>		

Issue	Assessment	Action
<p>safety, health or environmental reasons?</p> <p>16. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>17. What do you do to ensure that there is a clear and effective SHE improvement programme in place in all areas of the organisation? How have you set longer term goals?</p> <p>18. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>19. How does the organisation share and import good practice? For example does it participate in sharing information through The Loss Prevention Bulletin, the 'Responsible Care' or other relevant programmes?</p> <p>20. How do you ensure that your staff is made aware of relevant lessons learnt from accidents in your organisation and outside organisations?</p> <p>21. How do you know that near-misses are reported and acted upon?</p> <p>22. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury, damage to equipment or the environment? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses to establish the root causes, corrective actions and closing out? • Communication of lessons learnt from accidents to your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? <p>2. How have you ascertained that there is full compliance with the management systems in all areas of the</p>		

Issue	Assessment	Action
<p>organisation?</p> <p>3. How do you know that the necessary systems are established so that you are kept fully informed of:</p> <ul style="list-style-type: none"> • SHE problems? • On the plants? • In the maintenance areas? • In research? • In transportation of the company products? • In the use of company products? <p>4. How do you know that you have the necessary systems to ensure that the condition of all equipment is in a satisfactory state?</p> <p>5. How are you assured that the planned inspection schedule of plant equipment is up-to-date and that there are no overdue inspections or recommendations not closed out?</p> <p>6. How do you ensure that the company is prepared to learn from accidents in other organisations? Does this include:</p> <ul style="list-style-type: none"> • Management systems? • Training? • Human factors? • Equipment failure? • Process failures? • Identifying hazards? <p>7. How do you know that your staff understood the implications to the local community, others and corporate reputation if procedures are not followed?</p> <p>8. How do you ensure that all accidents and near misses are investigated to establish the root cause and that those corrective actions are agreed and closed out?</p> <p>9. How do you know that operating procedures are up-to-date and take account of learning and best practice?</p> <p>10. How do you ensure that all plant drawings are up-to-date?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that you have had the appropriate training and experience for your role covering Safety Health and Environmental protection?</p> <p>2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course?</p> <p>3. How do you know what the real safety, health and environmental issues in your organisation are and that you are competent to advise on them?</p> <p>4. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work?</p> <p>5. How do you hold line management and staff accountable for safety, health and environment while</p>		

Issue	Assessment	Action
<p>not tolerating blame? How do you foster a 'just culture' and do not tolerate poor SHE attitudes or performance?</p> <p>6. Have you established a comprehensive training scheme to ensure that all relevant staff have been informed and trained in their role in the Emergency Plan? Does this include the directors?</p>		
<p style="text-align: center;">Assurance</p> <p>1. How do you gain independent assurance that your management of SHE areas including processes, maintenance, research and systems are working properly? How do you know this is satisfactory?</p> <p>2. How do you ensure that the control of organisation and technical change is robust?</p> <p>3. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control?</p> <p>4. What is your system for checking the SHE behaviour and management of risks in the company?</p> <p>5. How do you ensure that the current independent safety assessment of SHE risk management in the organisation is satisfactory?</p> <p>6. How do you know how your SHE operations compare with others in terms of SHE culture and performance?</p>		
<p style="text-align: center;">Communication</p> <p>1. How are you assured that the communicating system with your staff is satisfactory?</p> <p>2. How do you ensure that those accountable to you report fully on their work?</p> <p>3. How do you ensure that safety, health and environment matters are raised at each Board Meeting?</p> <p>4. How do you ensure that current safety, health and environment issues raised at the Board level are communicated to all staff?</p> <p>5. How do you ensure that discussions with all Managers are regular, useful and productive?</p>		

Senior Operations Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that your part of the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you assist in the development of the organisation's Safety, Health and Environmental Protection Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environmental areas? 3. How did you assist the establishment of the risk control systems and ensure their robustness? 4. How do you know that the SHE Policy Statements are visible in all areas of your responsibility and that it has been communicated to all staff? 5. How have you ensured that the organisation's Emergency Plan is practical and been brought to the knowledge of all of your staff? 6. How have you ensured that your staff understood their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 7. How do you ensure that the SHE culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents 		

Issue	Assessment	Action
<p>and quality requirements?</p> <ul style="list-style-type: none"> • Requirement to carry out risk assessments in all areas where you might consider a hazard may be present? • Plans to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside companies? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to the safety, health and the environmental policies? For example, have you understood and signed the SHE Policy Statement? What do you do to demonstrate your commitment and support managers?</p> <p>4. How are you sure that all your staff (permanent and temporary) in your area of responsibility are aware of, understand and are fully committed to the SHE Policy Statement? How are you satisfied that appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at management meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? • Is there a SHE briefing for temporary workers and contractors? <p>5. What do you do to ensure that the SHE culture expectations are communicated and understood by your staff, including temporary workers and by any contractor or supplier to the company?</p> <p>6. How do you ensure that all of your staff is clear about your expectations, that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>7. How do you demonstrate by your actions each week that you are dedicated to safety, health and the environment in your actions and words? For example,</p>		

Issue	Assessment	Action
<p>do you visit all areas on a regular basis to check for compliance with the management policy? Are you well known on the plants and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>8. How do you consistently praise good practices and work and challenge poor performance?</p> <p>9. What is your involvement in safety meetings? Is it on a regular basis?</p> <p>10. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>11. How did you support your staff the last time that operations or maintenance had to be stopped for safety reasons?</p> <p>12. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>13. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>14. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>15. How do you know that near-misses are reported and acted upon?</p> <p>16. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors and temporary workers? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • To your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? <p>2. How do you know that the necessary systems are established so that you are kept fully informed of operations on the plants?</p> <p>3. How do you know that you have the necessary systems to ensure that all processes are operating within their design envelope and that the condition of all equipment is in a satisfactory state?</p>		
<p style="text-align: center;">Operating Criteria</p> <p>1. How do you know that your staff understand the implications to the local community, others and corporate reputation if procedures are not followed?</p> <p>2. How are you assured that the planned inspection schedule of plant equipment is up-to-date and that there are no overdue inspections or actions?</p> <p>3. How are you satisfied that all accidents and near misses are investigated, the root causes established and that improvement actions are agreed and closed out?</p> <p>4. How do you know that operating procedures are up-to-date and take account of learning and best practice?</p> <p>5. How do you ensure that the management systems are strictly complied with for:</p> <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? <p>6. How do you ensure that your staff is made aware of relevant lessons learnt from accidents in your organisation and outside organisations?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environmental protection?</p> <p>2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course? Do you read The Loss Prevention Bulletin and pass on a copy to your staff?</p> <p>3. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them?</p> <p>4. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work?</p>		

Issue	Assessment	Action
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How do you gain independent assurance that your management processes and systems are working properly? How do you know this is satisfactory? 2. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control? 3. What is your system for checking the SHE behaviour and management of risks in your area of responsibility? 4. How do you ensure that the current independent safety assessment of SHE risk management in your area is satisfactory? 5. How do you know how your operations compare with others in terms of SHE culture and performance? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How are you assured that the communicating system with your staff is satisfactory? 2. How do you ensure that those accountable to you report fully on their work? 3. How do you ensure that SHE matters are raised at each management meeting? 4. How do you ensure that current safety, health and environment issues are communicated to the Board level? 5. How do you ensure that discussions with all manager are regular, useful and productive? 		

Senior Maintenance Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all your staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that your part of the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you assist in the development of the organisation's Safety, Health and Environmental Protection Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environmental areas? 3. How do you know that the SHE Policy Statements are visible in all areas of your responsibility and that it has been communicated to all staff? 4. How did you assist the establishment of the Risk Control systems and ensure their robustness? 5. How have you ensured that the organisation's Emergency Plan is practical and been brought to the knowledge of all of your staff? 6. How have you ensured that your staff understood their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 7. What do you have to do to ensure that the safety culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate Goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents 		

Issue	Assessment	Action
<p>and quality requirements?</p> <ul style="list-style-type: none"> • Requirement to carry out risk assessments in all areas where you might consider a hazard may be present? • Plan to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside organisations? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to the safety, health and the environmental policies? For example, have you understood and signed the SHE Policy Statement? What do you do to demonstrate your commitment and support managers?</p> <p>4. How are you sure that all personnel in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? • Is there a SHE briefing for temporary workers and contractors? <p>5. What do you do to ensure that the SHE culture expectations are communicated and understood by your staff, including temporary workers and by any contractor or supplier?</p> <p>6. How do you ensure that all of your staff are clear about your expectations that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>7. How do you demonstrate by your actions each week that you are dedicated to safety in your actions and words? For example, do you visit all areas on a regular basis to check for compliance with the management</p>		

Issue	Assessment	Action
<p>policy? Are you well known on the plants and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>8. How do you consistently praise good practices and work and challenge poor performance?</p> <p>9. What is your involvement in SHE meetings? Is it on a regular basis?</p> <p>10. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>11. How did you support your staff the last time that operations or maintenance had to be stopped for safety reasons?</p> <p>12. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>13. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>14. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>15. How do you know that near-misses are reported and acted upon?</p> <p>16. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all equipment and working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors and temporary workers? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other organisations? • The loading and offloading of road tankers? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Whistleblowing? <ol style="list-style-type: none"> 2. How do you know that the necessary systems are established so that you are kept fully informed of operations on the plants? 3. How do you know that you have the necessary systems to ensure that the condition of all equipment is in a satisfactory state? 		
<p style="text-align: center;">Operating Criteria</p> <ol style="list-style-type: none"> 1. How do I know that your staff understand the implications to the local community, others and corporate reputation if procedures are not followed? 2. How are you assured that the planned inspection schedule of plant equipment is up-to-date and that there are no overdue inspections? 3. How are you satisfied that all accidents and near misses are reported and investigated and that those improvement actions are agreed and closed out? 4. How do you know that engineering procedures are up-to-date, take account of learning from accidents and best practice? 5. How do you know whether the plant drawings are up-to-date? 6. How do you ensure that the management systems are strictly complied with for: <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined Entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? 7. How do you ensure that your staff are made aware of relevant lessons learnt from accidents in your Organisation and outside organisations? 		
<p style="text-align: center;">Competence</p> <ol style="list-style-type: none"> 1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environment? 2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course? 3. How do you know what the real safety, health and environmental issues are in your area of responsibility are and that you are competent to manage them? 4. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work? 5. How do you ensure that your staff are trained and assessed competent 		

Issue	Assessment	Action
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How do you gain independent assurance that your management processes and systems are working properly? How do you know this is satisfactory? 2. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control? 3. What is your system for checking the SHE behaviour and management of risks in your area of responsibility? 4. How satisfied are you that you the current independent safety assessment of SHE risk management in your area? 5. How do you know how your operations compare with others in terms of SHE culture and performance? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How are you assured that the communicating system with your staff is satisfactory? 2. How do you ensure that those accountable to you report fully on their work? 3. How do you ensure that SHE matters are raised at each management meeting? 4. How do you ensure that current safety, health and environment issues are communicated to the Board level? 5. How do you ensure that discussions with all Managers are regular, useful and productive? 		

Plant Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all your staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that your part of the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the senior managers recognise that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the organisation's Safety, Health and Environment Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the Risk Control systems? 4. How have you assisted in the setting up of the Emergency Plan? 5. How have you ensured that your staff understood their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 6. How do you demonstrate your commitment to a positive attitude to safety, health and the environment? 7. What do you have to do to ensure that the safety culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environmental protection been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all 		

Issue	Assessment	Action
<p>areas where you might consider a hazard may be present?</p> <ul style="list-style-type: none"> • Plan to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration (especially when temporary workers are involved) • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the organisation and to outside organisations? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to safety, health and the environment? For example, have you understood and signed the policy statements? What do you do to demonstrate your commitment and support managers?</p> <p>4. How are you sure that all your staff (permanent and temporary) in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example,</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? • Is there a SHE briefing for hired out personnel? <p>5. How have you demonstrated a positive management commitment to the safety, health and the environment policies? For example, have you understood and endorsed the policy statements on your plant? What do you do to demonstrate your commitment and support of your staff?</p> <p>6. How do you ensure that all of your staff (permanent and temporary) is clear about your expectations of them? How are you sure that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>7. How do you demonstrate by your actions each week that you are dedicated to the SHE Culture in your</p>		

Issue	Assessment	Action
<p>actions and words? For example, do you visit all areas of your plant on a regular basis to check for compliance with the management policy? Are you well known on the plant and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>8. How do you consistently praise good practices and work and challenge poor performance?</p> <p>9. What is your involvement in safety meetings? Is it on a regular basis?</p> <p>10. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>11. How did you support your staff the last time that operations or maintenance had to be stopped for safety reasons?</p> <p>12. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>13. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>14. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>15. How do you know that near-misses are reported and acted upon?</p> <p>16. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (temporary included)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors and temporary workers? • Maintenance and hurried repair of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Communication of lessons learnt from accidents to your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? Is it possible? Has it ever been operating? <p>2. How do you know that the necessary systems are established so that you are kept fully informed of operations on the plants?</p> <p>3. How do you know that you have the necessary systems to ensure that all processes are operating within their design envelope and that the condition of all equipment is in a satisfactory state?</p>		
<p style="text-align: center;">Operating Processes</p> <p>1. How do you know that your staff understand the implications to the local community, others and corporate reputation if procedures are not followed?</p> <p>2. How are you assured that the planned inspection schedule of plant equipment is up-to-date, that there are no overdue inspections and that all recommendations are closed out?</p> <p>3. How do you ensure that the management systems are strictly complied with for:</p> <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined Entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? <p>4. How are you satisfied that all accidents and near misses are reported and investigated? How do you ensure that the actions are agreed and closed out?</p> <p>5. How do you know that operating procedures are up-to-date and take account of best practice and lessons learnt from accidents that occurred both within and outside the organisation?</p> <p>6. How do you ensure that the lessons learnt from accidents within your organisation and from other organisations that are relevant to your plant operations are communicated to you? What journals or bulletins do you see to keep you in touch with accidents outside your organisation?</p> <p>7. How do you encourage operating and maintenance staff to report near-misses, hazards foreseen or problems associated with safety, health and environment? Do you have a Plant Hazard Book for these to be recorded? What action do you take on any entry?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that you have had the appropriate training and experience for your role covering safety,</p>		

Issue	Assessment	Action
<p>health and environment?</p> <ol style="list-style-type: none"> 2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course? 3. How are you satisfied that the persons (permanent or temporary) appointed to your staff, unit managers and supervisors, have all of the necessary training, knowledge and information to carry out his/her work? 4. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them? 5. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work where a hazard is recognised? 6. How do you ensure that your operators have been trained and independently assessed as competent? 		
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How do you gain independent assurance that the management processes and systems are working properly on your plant? How do you know this is satisfactory? 2. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control? 3. What is your system for checking the SHE behaviour and management of risks in your area of responsibility? 4. How satisfied are you with the current independent safety assessment of SHE risk management in your area? 5. How do you know how your operations compare with others in terms of SHE culture and performance? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How are you assured that the communicating system with your staff is satisfactory? 2. How do you ensure that those accountable to you report fully on their work? 3. How do you ensure that SHE matters are raised at each management meeting? 4. How do you ensure that current safety, health and environment issues are communicated to the senior manager level? 5. How do you ensure that discussions with all your Staff are regular, useful and productive? 		

Plant Engineer

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all your staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the senior managers recognise that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so it makes sound business sense to manage all that business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the organisation's Safety, Health and Environment Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the Risk Control systems? 4. How have you assisted in the setting up of the Emergency Plan? 5. How have you ensured that your staff and temporary workers understand their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 6. How do you demonstrate your commitment to a positive attitude to safety, health and the environment? 7. What do you have to do to ensure that the safety culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be 		

Issue	Assessment	Action
<p>present?</p> <ul style="list-style-type: none"> • Plan to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the Company and to outside companies? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to the safety, health and the environment policies? For example, have you understood and signed the policy statements on your plant? What do you do to demonstrate your commitment and support of your staff?</p> <p>4. How are you sure that all personnel in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example,</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in placed • Which if followed would fulfil the policy goals? • Is there a SHE briefing for hired out personnel? <p>5. How do you ensure that all of your staff is clear about your expectations of them? How are you sure that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>6. How do you demonstrate by your actions each week that you are dedicated to SHE Culture in your actions and words? For example, do you visit all areas of your plant on a regular basis to check for compliance with the management policy? Are you well known on the plant and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>7. How do you consistently praise good practices and work and challenge poor performance?</p>		

Issue	Assessment	Action
<p>8. What is your involvement in safety meetings? Is it on a regular basis?</p> <p>9. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>10. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>11. How did you support your staff the last time that operations or maintenance had to be stopped for safety reasons?</p> <p>12. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>13. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>14. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>15. How do you know that near-misses are reported and acted upon?</p> <p>16. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (temporary workers included)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance or urgent repair work? • The use of contractors and temporary workers? • Maintenance and hurried repair of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other organisations? • The loading and offloading of road tankers? • Whistleblowing? Is it possible? Has it ever 		

Issue	Assessment	Action
<p>happened?</p> <p>2. How do you know that the necessary systems are established so that you are kept fully informed of engineering and process operations on the plants?</p> <p>3. How do you know whether the plant drawings are up-to-date?</p>		
<p style="text-align: center;">Operating Processes</p> <p>1. How do you know that your staff understand the implications to the local community, others and corporate reputation if procedures are not followed?</p> <p>2. How do you know that you have the necessary systems to ensure that the condition of all equipment is in a satisfactory state? How do you ensure that there are no outstanding recommendations from inspection reports and all actions are closed out?</p> <p>3. How do you ensure that the management systems are strictly complied with for;</p> <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined Entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? <p>4. How are you satisfied that all accidents and near misses are reported and investigated? How do you ensure that the actions are agreed and closed out?</p> <p>5. How do you know that the engineering procedures are up to date and take account of best practice and lessons learnt from accidents that occurred both within and outside the organisation?</p> <p>6. How do you ensure that the lessons learnt from accidents within your organisation and from other organisations that are relevant to your plant operations are communicated to you? What journals or bulletins do you see to keep you in touch with accidents outside your organisation?</p> <p>7. How do you encourage maintenance staff to report near-misses, hazards foreseen or problems associated with safety, health and environment? Do you have an Engineering Hazard Book for these to be recorded? What action do you take on any entry?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environment?</p> <p>2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course?</p> <p>3. How are you satisfied that the persons appointed to your staff, unit managers and supervisors, have all of</p>		

Issue	Assessment	Action
<p>the necessary training, knowledge and information to carry out his/her work?</p> <p>4. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them?</p> <p>5. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work where a hazard is recognised?</p> <p>6. How do you ensure that your operatives have been trained and independently assessed as competent?</p>		
<p style="text-align: center;">Assurance</p> <p>1. How do you assure your senior management that the engineering maintenance and inspections are carried out properly and that there are no short cuts introduced?</p> <p>2. How do you gain independent assurance that the management processes and systems are working properly on your plant? How do you know this is satisfactory?</p> <p>3. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control?</p> <p>4. What is your system for checking the SHE behaviour and management of risks in your area of responsibility?</p> <p>5. How satisfied are you with the current independent safety assessment of SHE risk management in your area?</p> <p>6. How do you know how your operations compare with others in terms of SHE culture and performance?</p>		
<p style="text-align: center;">Communication</p> <p>1. How are you assured that the communicating system with your staff is satisfactory?</p> <p>2. How do you ensure that those accountable to you report fully on their work?</p> <p>3. How do you ensure that SHE matters are raised at each management meeting?</p> <p>4. How do you ensure that current safety, health and environment issues are communicated to the senior manager level?</p> <p>5. How do you ensure that discussions with all your staff are regular, useful and productive?</p>		

Maintenance Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors, staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is receptive to bad news as it is to good news? 4. How do you know that the senior manager recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the organisation's Safety, Health and Environment Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the Risk control Systems? 4. How have you assisted in the setting up of the Emergency Plan? 5. How have you ensured that your staff and temporary workers understand their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 6. How do you demonstrate your commitment to a positive attitude to safety, health and the environment? 7. What do you have to do to ensure that the safety culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be 		

Issue	Assessment	Action
<p>present?</p> <ul style="list-style-type: none"> • Plan to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the Company and to outside companies? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated your positive attitude management commitment to the safety, health and the environment policies? For example, have you understood and endorsed the policy statements on your plant? What do you do to demonstrate your commitment and support of your staff?</p> <p>4. How are you sure that all personnel in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in placed which if followed would fulfil the policy goals? • Is there a SHE briefing for hired out personnel? <p>5. How do you ensure that all of your staff (permanent and temporary) are clear about your expectations of them? How are you sure that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>6. How do you demonstrate by your actions each week that you are dedicated to SHE Culture in your actions and words? For example, do you visit all areas of your plant on a regular basis to check for compliance with the management policy? Are you well known on the plant and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>7. How do you consistently praise good practices and work and challenge poor performance?</p>		

Issue	Assessment	Action
<p>8. What is your involvement in safety meetings? Is it on a regular basis?</p> <p>9. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>10. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>11. How did you support your staff the last time that operations or maintenance had to be stopped for safety reasons?</p> <p>12. What was your behaviour with regard to SHE at the last breakdown of the plant? For example did you ask first about the safety implications?</p> <p>13. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>14. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>15. How do you know that near-misses are reported and acted upon?</p> <p>16. How do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (temporary workers included)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other organisations? • The loading and offloading of road tankers? • Whistleblowing? 		

Issue	Assessment	Action
2. How do you know that the necessary systems are established so that you are kept fully informed of engineering and process operations on the plants? 3. How do you know whether the plant drawings are up-to-date?		
<p style="text-align: center;">Operating Processes</p> 1. How do you know that your staff understand the implications to the local community, others and corporate reputation if procedures are not followed? 2. How do you know that you have the necessary systems to ensure that the condition of all equipment is in a satisfactory state? How do you ensure that there are no outstanding recommendations from inspection reports and all actions are closed out? 3. How do you ensure that the management systems are strictly complied with for: <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined Entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? 4. How are you satisfied that all accidents and near misses are reported and investigated? How do you ensure that the actions are agreed and closed out? 5. How do you know that the engineering procedures are up to date and take account of best practice and lessons learnt from accidents that occurred both within and outside the organisation? 6. How do you ensure that the lessons learnt from accidents within your organisation and from other organisations that are relevant to your plant operations are communicated to you? What journals or bulletins do you see to keep you in touch with accidents outside your organisation? 7. How do you encourage maintenance staff to report near-misses, hazards foreseen or problems associated with safety, health and environment? Do you have an Engineering Hazard Book for these to be recorded? What action do you take on any entry?		
<p style="text-align: center;">Competence</p> 1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environment? 2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course? 3. How are you satisfied that the persons appointed to your staff, unit managers and supervisors, have all of the necessary training, knowledge and information to		

Issue	Assessment	Action
<p>carry out his/her work?</p> <p>4. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them?</p> <p>5. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work where a hazard is recognised?</p> <p>6. How do you ensure that your operatives have been trained and independently assessed as competent?</p>		
<p style="text-align: center;">Assurance</p> <p>1. How do you assure your senior management that the engineering maintenance and inspections are carried out properly and that there are no short cuts introduced?</p> <p>2. How do you gain independent assurance that the management processes and systems are working properly on your plant? How do you know this is satisfactory?</p> <p>3. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control?</p> <p>4. What is your system for checking the SHE behaviour and management of risks in your area of responsibility?</p> <p>5. How satisfied are you that the current independent safety assessment of SHE risk management in your area?</p> <p>6. How do you know how your operations compare with others in terms of SHE culture and performance?</p>		
<p style="text-align: center;">Communication</p> <p>1. How are you assured that the communicating system with your staff is satisfactory?</p> <p>2. How do you ensure that those accountable to you report fully on their work?</p> <p>3. How do you ensure that SHE matters are raised at each management meeting?</p> <p>4. How do you ensure that current safety, health and environment issues are communicated to the senior manager level?</p> <p>5. How do you ensure that discussions with all your staff are regular, useful and productive?</p>		

Senior Design Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the Safety, Health and Environmental Protection Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environment areas?o at training meetings? 3. Is it discussed at plant meetings? 4. Are there comprehensive procedures in place which if followed would fulfil the policy goals? 5. Is there a SHE 6. How did you assist the establishment of the Risk Control systems and ensure their robustness? 7. How did you contribute to the organisation's Emergency Plan and have you taken part in a training session? 8. How have you ensured that your staff understood their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 9. What do you have to do to ensure that the safety culture objectives are completely achieved in the design work? 10. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 11. How is the concept of inherent safety understood by yourself and your design team? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 		

Issue	Assessment	Action
<p>2. How do you implement the:</p> <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be Present? • Plan to prevent terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt to all areas of the organisation and to outside companies? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to safety, health and the environment? For example, have you understood and signed the policy statements? What do you do to demonstrate your commitment and support managers?</p> <p>4. How are you sure that all personnel in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? • Is there a SHE briefing for hired out personnel? <p>5. How do you ensure that all of your staff is clear about your expectations understand them and that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>6. How do you demonstrate by your actions each week that you are dedicated to safety in your actions and words? For example, do you visit all areas on a regular basis to check for compliance with the management policy? Are you well known in the design offices and</p>		

Issue	Assessment	Action
<p>can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>7. How do you consistently praise good practices and work and challenge poor performance?</p> <p>8. What is your involvement in safety meetings? Is it on a regular basis?</p> <p>9. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>10. What was your behaviour with regard to SHE when business requirements are placing undue pressure on design timetables?</p> <p>11. What do you do to ensure that there is a clear and effective SHE improvement programme in place?</p> <p>12. How do you ensure that adequate resources are made available consistent with the safety culture and to enable agreed safety improvement action plans to be delivered on time?</p> <p>13. How do you really know that you are not becoming complacent?</p> <p>14. How do you help your staff with challenging SHE design problems?</p> <p>15. How do you approach HAZOP studies when told of time and money constraints?</p> <p>16. How do you challenge conservative operations staff so as to secure improved designs with regard to SHE?</p> <p>17. How do you encourage inherent safety design in your work?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (temporary included)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Communication of lessons learnt from accidents to your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? <ol style="list-style-type: none"> 2. How have you ensured that you have knowledge of all new design codes and standards and they are incorporated in the design work? 3. How have you ensured that lessons learnt from accidents in the organisation and outside are incorporated in the design work? 4. How do you know that the necessary systems are established so that you are kept fully informed of major SHE risks within projects? 5. 5. How do you know that you have the necessary systems to ensure that the appropriate design resources are brought to bear on major SHE risks in projects? 		
<p style="text-align: center;">Design Processes</p> <ol style="list-style-type: none"> 1. How do you know that your staff understood the implications to operating personnel, the local community, others and corporate reputation if design procedures are not followed? 2. How are you assured that critical design information is transferred into operating procedures and schedules? 3. How are you satisfied that learning from experience results in improvements to design processes and reduce SHE risks? 4. How do you know that design procedures and drawings are up to date, and as a minimum are based on approved design codes and standards and take account of learning lessons of accidents (both inside the organisation and outside) and best practice? 5. How do you foster a positive approach to inherent safety, health and environmental design? 6. How do you ensure that value for money and risk based assessment processes are used to determine the best value design outcomes particularly with regard to mitigating SHE risks? 		
<p style="text-align: center;">Competence</p> <ol style="list-style-type: none"> 1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environment? 2. How do you keep yourself up to date with HSE best practice? For example have you attended an advanced training course? What journals do you receive which help to keep you up-to-date? 3. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them? 4. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work? 		

Issue	Assessment	Action
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How do you gain independent assurance that the design procedures, management processes and systems are working properly? How do you know this is satisfactory? 2. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control? 3. What is your system for checking the SHE behaviour and management of risks in your area of responsibility? 4. How satisfied are you that you a current independent safety assessment of SHE risk management in your area? 5. How do you know how your design processes compare with others in terms of SHE culture and performance? 6. How do you know that all drawings are up-to-date? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How do you communicate with the Senior Operations Manager, Senior Maintenance Manager and the SHE Manager? 2. How do you ensure that those accountable to you report fully on their work? 3. How do you ensure that SHE matters are raised at each management and design meeting? 4. How do you ensure that current safety, health and environment issues are communicated to the senior manager level? 5. How do you ensure that discussions with all your staff are regular, useful and productive? 		

Design Engineer

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors, staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the Safety, Health and Environmental Protection Policy Statement? 2. How did you contribute to the company's risk register to establish what could go wrong in the safety, health and environment areas? 3. How did you assist the establishment of the Risk Control systems? 4. How have you assisted in setting up the Emergency Plan? 5. How have you ensured that your staff understood their own responsibilities in all SHE matters and how do they assure you that they are fully in control? 6. How do you demonstrated a positive management commitment to safety, health and the environment? 7. What do you have to do to ensure that the safety culture objectives are completely achieved? 8. What is your continuous improvement process and how do you know it is contributing to the corporate goals? 		
<p>Leadership</p> <ol style="list-style-type: none"> 1. How has the responsibility and accountability for health, safety and environment been established for yourself and all of those reporting to you? 2. How do you implement the: <ul style="list-style-type: none"> • Requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • Requirement to carry out risk assessments in all areas where you might consider a hazard may be present? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Prevention of terrorists activities? • Management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • Commitment to investigate all incidents including: <ul style="list-style-type: none"> ◦ outbreaks of fire ◦ release of gasses or liquids ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • Commitment to communicate the lessons learnt from accident investigations to all areas of the Company and to outside companies? • Communication with local community, local authorities and emergency services in the event of an emergency? <p>3. How have you demonstrated a positive management commitment to the safety, health and the environment policies? For example, have you understood and endorsed the SHE Policy Statement? What do you do to demonstrate your commitment and support Managers?</p> <p>4. How are you sure that all personnel in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? • Is there a SHE briefing for hired out personnel? <p>5. How do you ensure that all of your staff is clear about your expectations understand them and that they follow the SHE policies and management systems? For example, do you manage in a manner that demonstrates that you believe in the SHE culture? For example, was safety the first item on the last meeting with your staff?</p> <p>6. How do you demonstrate by your actions each week that you are dedicated to safety in your actions and words? For example, do you visit all areas on a regular basis to check for compliance with the management policy? Are you well known in the design offices and can you be sure that if employee were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>7. How do you consistently praise good practices and work and challenge poor performance?</p> <p>8. What is your involvement in safety meetings? Is it or a</p>		

Issue	Assessment	Action
<p>regular basis?</p> <p>9. How do you check that business pressures do not lead to shortcuts being taken that lead to safety being violated?</p> <p>10. What do you do to ensure that there is a clear and effective SHE improvement programme in design?</p> <p>11. How do you demonstrate your commitment to a positive attitude to safety, health and the environment in design work?</p> <p>12. How do you know that your staff understood fully the SHE Policies and the commitment to SHE in their design work?</p> <p>13. How has responsibility and accountability been understood amongst all of your staff?</p> <p>14. What was your behaviour with regard to SHE when business requirements are placing undue pressure on design timetables?</p> <p>15. How do you help your staff with challenging SHE design problems?</p> <p>16. How do you challenge conservative operations staff so as to secure improved designs with regard to SHE</p> <p>17. How do you encourage inherent safety design in your work?</p> <p>18. Do you really know that you are not becoming complacent?</p>		
<p style="text-align: center;">Management Systems</p> <p>1. How have you ensured that adequate management systems have been established and implemented for:</p> <ul style="list-style-type: none"> • Training of all employees (temporary included)? • Assessment of competency of employees? • Changes in equipment, process and manning? • Inspection of all working areas? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? • Personal protective equipment? • Purchasing controls? • Reporting and investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other companies? • The loading and offloading of road tankers? • Whistleblowing? 		

Issue	Assessment	Action
<ol style="list-style-type: none"> 2. How have you ensured that all design codes and standards are incorporated in the design work and that best practice is adopted? 3. How have you ensured that lessons learnt from accidents in the organisation and outside are incorporated in the design work? 4. How do you know that the necessary systems are established so that you are kept fully informed of major SHE risks within projects? 5. How do you know that you have the necessary systems to ensure that the appropriate design resources are brought to bear on major SHE risks in projects? 6. How do you know that your staff is fully committed to safety? 		
<p style="text-align: center;">Design Processes</p> <ol style="list-style-type: none"> 1. How do you ensure that your staff understand the implications to operating personnel, the local community, others and corporate reputation if design procedures are not followed? 2. How do you ensure that critical design information is transferred into operating procedures and schedules? 3. How do you ensure that learning from experience results in improvements to design processes and reduce SHE risks? 4. How do you ensure that design procedures are up-to-date, and as a minimum are based on approved design codes and standards and take account of learning and best practice? 5. How do you ensure drawings are kept up-to-date? 6. How do you foster a positive approach to inherent safety, health and environmental design? 7. How do you ensure that value for money and risk based assessment processes are used to determine the best value design outcomes particularly with regard to mitigating SHE risks? 		
<p style="text-align: center;">Competence</p> <ol style="list-style-type: none"> 1. How do you know that you have had the appropriate training and experience for your role covering safety, health and environment? 2. How do you keep yourself up to date with SHE best practice? For example have you attended an advanced training course? 3. How do you know what the real safety, health and environmental issues are in your area of responsibility and that you are competent to manage them? 4. How are you satisfied that an up to date risk register is maintained and that risk assessment is carried out on all work? 		
<p style="text-align: center;">Assurance</p> <ol style="list-style-type: none"> 1. How do you gain independent assurance that the design standards, management processes and systems 		

Issue	Assessment	Action
<p>are working properly? How do you know this is satisfactory?</p> <ol style="list-style-type: none"> 2. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control? 3. What is your system for checking the SHE behaviour and management of risks in your area of responsibility? 4. How satisfied are you that you a current independent safety assessment of SHE risk management in your area? 5. How do you know how your design processes compare with others in terms of SHE culture and performance? 		
<p style="text-align: center;">Communication</p> <ol style="list-style-type: none"> 1. How do you communicate with the Senior Operations Manager and the SHE Manager? 2. How do you ensure that those accountable to you report fully on their work? 3. How do you ensure that SHE matters are raised at each management and design meeting? 4. How do you ensure that current safety, health and environment issues are communicated to the senior manager level? 5. How do you ensure that discussions with all your staff are regular, useful and productive? 		

Safety, Health and Environment Manager

Issue	Assessment	Action
<p>Safety, Health And Environment Culture</p> <ol style="list-style-type: none"> 1. How have you developed a personal understanding of the influence different levels of management have on the organisational climate of the organisation? 2. How have you made sure that all directors, staff (including temporary workers) and contractors are committed to promoting safety, health and environmental protection (SHE)? 3. How have you ensured that the organisation has developed an open and honest operation which is as receptive to bad news as it is to good news? 4. How do you know that the Board recognises that improving worker health and safety motivation is fundamental to improving safety? How do you know that environmental protection is being improved? 5. How have you made certain that corporate social responsibility principles have been established so that it makes sound business sense to manage all business risks effectively? 		
<p>Safety, Health And Environmental Protection Policy</p> <ol style="list-style-type: none"> 1. How did you contribute to the Safety, Health and Environmental Protection Policy Statement? 2. How did you contribute to the organisation's Risk Register to establish what could go wrong in the safety, health and environmental areas? 3. How did you identify the risks and establish the Risk Control systems? 4. How have you convinced the management to adopt a commitment to safety, health and the environmental protection? For example, have you ensured that the management is fully in the picture to the requirements of the current regulations and standards of governance? 5. How do you monitor the implementation and operation of: <ul style="list-style-type: none"> • The requirement to comply with all regulations, relevant codes and practices, lessons learnt from accidents and quality requirements? • The requirement to carry out risk assessments in all areas where you might consider a hazard may be present? • The plan to prevent terrorists activities? • The management of change section covering: <ul style="list-style-type: none"> ◦ equipment change or alteration ◦ process change or alteration ◦ manning change or alteration • The commitment to investigate and find the root causes of all incidents including: <ul style="list-style-type: none"> ◦ release of gasses or liquids 		

Issue	Assessment	Action
<ul style="list-style-type: none"> ◦ outbreaks of fire ◦ discharges of chemicals to drain or effluent ◦ near-misses ◦ security threats • The commitment to communicate the lessons learnt to all areas of the Company and to outside companies? The communication with local community, local authorities and emergency services in the event of an emergency? <p>6. How are you sure that all workers, including temporary and contractors, in your area of responsibility are aware of the SHE Policy Statement, understand it and are committed to it? How do you ensure that the appropriate operating procedures are in place to give effect to that policy? For example:</p> <ul style="list-style-type: none"> • Is it referred to at training meetings? • Is it discussed at plant and workshop meetings? • Are there comprehensive procedures in place which if followed would fulfil the policy goals? <p>7. Is there a SHE briefing for contractors and temporary workers?</p> <p>8. How do you know that the SHE Policy Statement is visible at all operating, workshop and office areas of the organisation and that it is known and understood by all employees?</p> <p>9. How are you assured that responsibility and accountability have been fully established through out the organisation?</p> <p>10. How have you established a continuous improvement culture? For example have you established a goal of working towards a zero accident performance?</p> <p>11. How have you established Process Safety Indicators and how do you monitor them?</p> <p>12. In what areas have you established active and proactive indicators? What were the factors that influenced the choice?</p> <p>13. How does the company share and import good practice? For example does it participate in sharing information through The Loss Prevention Bulletin, the 'Responsible Care' or other relevant programmes?</p> <p>14. How have you established a policy of working towards inherent safety in new processes and existing Processes?</p> <p>15. Is there a written policy on drugs and alcohol covering all staff and how do you ensure that it is enforced?</p>		
<p style="text-align: center;">Leadership</p> <p>1. How has the responsibility and accountability for health, safety and environment been established for yourself and how do you ensure that they are also established for other members in the company?</p> <p>2. What is your view of the safety, health and</p>		

Issue	Assessment	Action
<p>environment culture that you wish to see in the company and how does it compare with best practice? How do you know that the desired safety culture is clear?</p> <ol style="list-style-type: none"> 3. What do you do to ensure that the safety culture expectations are communicated and understood by employees throughout the company and by any contractor or supplier to the company? 4. How frequently do you visit all sections of the plant and work areas to be assured about compliance with the management policy? How well do you believe employees know you and feel able to contact you? Why do you believe that and what evidence do you have? 5. Which SHE meetings do you attend? How do you know this is sufficient? 6. How do you assess the SHE performance of the organisation? Is the SHE performance on the agenda of each staff meeting and is there follow up to issues? 7. How do you ensure that performance measures show how well the major hazards are being controlled? 8. How do you ensure that all of the persons working for you are fully aware of their safety responsibilities, are fully trained for their work and are brought up-to-date to the latest developments in safety and do they ensure safety in their work? 9. How do you demonstrate a commitment to safety and ensure a commitment from others who work for you? 10. How do you encourage the sharing of lessons learnt from accidents within as well as outside the company'? 		
<p style="text-align: center;">Management Systems</p> <ol style="list-style-type: none"> 1. How does the company management system give effect to the policy? For example does it cover: <ul style="list-style-type: none"> • A management of change section covering changes in equipment, process and manning? • Reporting and Investigation of all accidents and near-misses? • Communication of lessons learnt from accidents to your own employees and to other companies? • Risk assessment of all work with the potential for injury? • Controlled work on entry to confined spaces, sources of ignition, high pressure water jetting and maintenance work? • The use of contractors? • The loading and offloading of road tankers? • Assessment of competency of staff? • Inspection of the working areas? • Maintenance of all equipment? • Inspection of all equipment? • Emergency procedures? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Personal protective equipment? • Purchasing controls? • Whistleblowing? <p>2. How are research and development operations controlled to avoid accidents particularly with regard to new developments? How do you check for reactive chemical hazards in new processes? Do you check in Bretherick's 'Handbook of Reactive Chemical Hazards'?</p>		
<p style="text-align: center;">Operations</p> <p>1. How do you monitor the operation of the following management systems to ensure full compliance:</p> <ul style="list-style-type: none"> • All Work Permits? • Hot Work Permits? • Confined Entry Permits? • Electrical Permits? • Vehicle Entry Permits? • High Pressure Water Jetting Permits? • All other work that requires a permit? <p>2. How do you monitor the risk assessments carried out by operational managers?</p> <p>3. How do you assist in HAZOP studies?</p> <p>4. How do you ensure that near-misses are reported?</p> <p>5. How do you monitor accident investigations? How do you ensure that root causes are established?</p> <p>6. How do you ensure that recommendations from accident investigations are closed out?</p> <p>7. How do you know that the persons appointed to operational, design and maintenance positions have the necessary training, information and resources to carry out their work?</p> <p>8. How do you demonstrate by your actions each week that you are dedicated to the SHE Culture in your actions and words? For example, do you visit all areas of the organisation on a regular basis to check for compliance with the management policy? Are you well known on the plants and workshops and can you be sure that if employees were asked when you were last seen you can be sure that they do not say 'We have not seen him/her for ages'?</p> <p>9. How do you ensure that the lessons learnt from accidents within your organisation and from other organisations that are relevant to your plant operations are communicated to you? What journals or bulletins do you see to keep you in touch with accidents outside your organisation?</p> <p>10. How do you ensure that the following are kept up-to-date:</p> <ul style="list-style-type: none"> • Operating procedures? • Risk assessments? 		

Issue	Assessment	Action
<ul style="list-style-type: none"> • Drawings? • Standing instructions? <p>11. How do you judge and ensure the allocation of responsibility and accountability in all departments are satisfactory?</p> <p>12. How do you ensure that you are not becoming complacent in your work?</p>		
<p style="text-align: center;">Competence</p> <p>1. How do you know that your education, training and experience include all aspects of safety, health and environmental protection required for your role? What is your process for keeping up to date and how well is it working?</p> <p>2. How do you know that each of your subordinate staff has the experience and training for their role? How have you assessed their competence for their role?</p> <p>3. How do you know that all employees have the necessary training and experience in safety, health and environment for their work?</p>		
<p style="text-align: center;">Assurance</p> <p>1. How do you gain independent assurance that the management processes and systems are working properly on the plants, workshops and offices? How do you know this is satisfactory?</p> <p>2. How do you ensure that responsibility and accountability is established at all senior levels in the Company?</p> <p>3. How are you satisfied that your assurance processes are carried out at an effective frequency to ensure that high standards are being achieved and that risks are under control?</p> <p>4. What is your system for checking the SHE behaviour and management of risks in your area of responsibility?</p> <p>5. How satisfied are you with the current independent safety assessment of SHE risk management in your area?</p> <p>6. How do you know how your operations compare with others in terms of SHE culture and performance?</p> <p>7. To what extent does the corporate risk register take account of SHE risks?</p> <p>8. How well is the company internal audit plan developed from the corporate risk register?</p> <p>9. How do you know that there is an audit process in place which provides assurance about the condition of all equipment, the reliability of the processes and the competence of all employees, contractors and suppliers?</p> <p>10. How do you obtain assurance about the effective control of SHE risks in the company?</p>		
<p style="text-align: center;">Communication</p> <p>1. How do you ensure that current safety issues raised at</p>		

Issue	Assessment	Action
<p>the Board level are communicated to all staff?</p> <p>2. How are you assured that the communicating system with your staff is satisfactory?</p> <p>3. How do you ensure that those accountable to you report fully on their work?</p> <p>4. How do you ensure that SHE matters are raised at each management meeting?</p> <p>5. How do you ensure that current safety, health and environment issues are communicated to the senior manager level?</p> <p>6. How do you ensure that discussions with all your staff are regular, useful and productive?</p>		

Appendix 5. SHE Scheme of Delegation –Part Example for a Plant Manager

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
1	Operation of the abc plant to meet business objectives but within the company's Safety, Health and Environmental policies which include meeting all legal obligations.	My supervisor has responsibility for a group of plants and for their overall performance. He has delegated to me the responsibility for the abc plant.	I have agreed an annual plan for the plant with my supervisor. This includes clearly defined production requirements and safety, health and environmental standards which must be achieved. I have reviewed the plan with my production team and established how we will operate.	I am accountable for the plant performance in all respects but I have delegated the day to day control of the plant within agreed written procedures to the shift team. My plant engineer is accountable for maintaining the integrity of the hardware and software systems on the plant up to its battery limits.	Ensure I understand those requirements and what I have to do to meet them. Ensure that I have an explicit 'contract' with my supervisor about my role and what he has delegated to me. Agree with my supervisor how he will monitor my performance and be assured about my SHE obligations. Agree with my shift team how I will monitor their compliance with SHE requirements and how they will give me assurance. Ensure that operating procedures for my plant meet corporate policy and legal	Production performance in terms of output, quality, cost. Safety, Health and environmental performance in terms of: <ul style="list-style-type: none"> • LTAs, • no. of incidents, • no. of near misses, • no. of uncontrolled emissions. The risk register passes independent review. An independent annual audit of the SHE risk management arrangements and practice is satisfactory. I am told by the shift team and other personnel when an unsafe practice has occurred.	I produce a monthly report on performance which covers key measures. This is basis for a monthly review performance with my supervisor and with my shift teams. We agree any improvement actions necessary. My supervisor makes an unplanned visit to my plant once a week to review activities on the ground. Sometimes these are out with normal hours. As well as my daily scheduled visits to review daily performance with the shift team, I make unplanned visits to the plant to check that operations are in line with laid down procedures. I discuss any

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
					<p>requirements.</p> <p>Agree with my plant engineer how he provides assurance about the integrity of the assets.</p> <p>Establish and maintain the plant risk register and ensure that the arrangements are in place and that the competence is deployed to mitigate the identified risks.</p> <p>Establish an open an honest environment on my plant where safety, health and environmental practice and issues can be shared and discussed.</p>		<p>significant abnormal findings with my supervisor.</p> <p>When I decide to change the production plan due to a safety, health or environmental issue I inform my supervisor.</p> <p>I know that I can use the Company's whistleblowing arrangements if a situation arose where I was asked to compromise safety due to business pressures.</p>
2	Plant operating procedures	As above	<p>Annual review of procedures.</p> <p>Written time specific variations to deal with specific issues subject to recorded risk assessment.</p> <p>Procedure revisions have</p>	Me	<p>Maintain a schedule which ensures an annual review of all procedures.</p> <p>Delegate review to the shift teams. Sign</p>	<p>Procedures are up-to-date.</p> <p>Custom and practice does not overtake procedures.</p>	<p>Review schedule followed.</p> <p>Clear audit trail for review.</p> <p>Independent audit assures integrity of review process.</p>

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
			been subject to critical risk review.		off each procedure review. Use a hazard review panel to sign off any changes or time limited variations.		Shift teams raise modifications when desired practice is not within procedure.
3	Permit to work (PTW) procedure	A site wide PTW procedure exists. I am responsible for its proper use on my plant.	Delegation of permit issue to shift supervisors except for high hazard and fire permits. Daily review of permits issued so that I am aware of activities in progress.	Me	Ensure I understand and am familiar with the PTW procedure. Ensure that my shift teams have been trained in the PTW procedure and that they demonstrate competence. Raise any proposed changes in the PTW procedure with the PTW procedure	No. of incorrect PTWs. No of incidents arising from inadequate PTWs	Check 10% of all PTWs. Check 5% of work in progress. Monthly report on PTW standards and results of checks. Shift teams bring to my attention any failings in the system.
4	Plant risk register	There is a Site SHE risk register which is an aggregate of individual plant risks and overall site risks. I am responsible for the integrity of my plant risk register following laid down	Maintain an up to date risk register. Ensure that the Site Risk manager is aware of and understands the current version of the plant risk register.	Me	Annual review of risk register. Review risk register when plant modifications occur. Ensure plant personnel are aware of understand risk	Risk Register always up-to-date. No incidents due to inadequate risk register. No incidents due to inadequate understanding of the risk register.	Biannual independent audit. Annual review with my supervisor. Annual review with Site Risk Manager.

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
		risk identification and assessment procedures.			register.		
5	Plant Hazard Book	The Site has a policy and procedure that requires all plants to maintain a plant hazards book that enables anyone to record and raise issues with regard to safety, health and environmental issues.	Ensure that the plant hazard book is maintained in a prominent place on the plant. Ensure it is seen as a vital part of maintaining the Safety, Health and Environmental integrity of the plant and protection of people.	Me	Established well defined accessible location. Be seen to review the book on a daily basis and ensure that actions are assigned and closed out on each issue raised. Ensure that the Plant Risk Register is updated when appropriate.	The book is used. Actions are confirmed within one week of the record. Actions are closed out within the scheduled time. No outstanding issues for risk register.	Review with shift teams. Biennial review with my supervisor.
6	Plant operating resources	I was appointed by my supervisor. I am responsible for the operating personnel on the plant.	I appoint the plant shift supervisors. I have delegated the appointment of operators to the plant shift managers with the help of the plant training manager.	Me Plant shift managers and training manager.	Maintain a succession list. Develop and train potential successors. Validate that shift teams have the necessary experience and demonstrated competence as part of the appointment process. Ensure continuous	Credible successors available. No incidents due to lack of experience, competence and training. No overtime due to lack of competent resources.	Annual review with my supervisor covering complement of resources and strength of succession plan. Biannual review with shift teams covering strength of operating teams. Quarterly review with training manager covering success of training programme.

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
					development of shift teams. Maintain the integrity of a plant wide process of training and education of resources.		
7	Learning From Experience(LFE)	The company has a clear policy with regard to LFE. I am responsible for feeding experience and learning from my plant into the company database. I am also responsible for acquiring and adopting relevant learning from the corporate and other LFE sources.	Ensure my team is linked into the LFE system and contributes to it. Ensure I have a system to identify relevant learning from the corporate and other LFE databases.	Me Shift teams Plant Engineer	Contribute to LFE database. Acquire and apply relevant learning.	No incidents elsewhere in Company because I have failed to input learning to the Company LFE database. No incidents due to failing to acquire and adopt relevant learning from elsewhere.	Annual review with Company LFE manager. Annual report about lessons learned and adopted on my plant. Annual review with my supervisor. Annual review with my team.

Appendix 6. Template for a Schedule 2–Benchmark Test Questions

	Benchmark question	Response	Reference/source documents
1	How is your company organised to implement its Health and Safety Policy?		
2	What is the relationship between your department/section/group and the company?		
3	If you are a director of a subsidiary company, what is the relationship between the subsidiary and the parent group?		
4	If you are a director, how does the Board of the company operate?		
5	What is your role in the company and what does it entail?		
6	What are your qualifications for the role?		
7	Who appointed you to the role and how was this done?		
8	What training/education have you had for this role particularly with regard to its HSE impact?		
9	Explain to me your role in safety management in the company?		
10	How do you discharge your SHE accountabilities?		
11	What HSE information do you receive?		
12	What do you do with the information?		
13	How do you know the information is valid?		
14	How do you know the procedures are adequate?		
15	How do you know the procedures are understood?		
16	How do you know people are able to apply the procedures?		
17	How do you know the company/local procedures are being followed?		

Benchmark question		Response	Reference/source documents
18	You have told me about audit processes and their findings. How do you know that agreed actions are properly closed out so that the desired outcome is being achieved?		
19	What do you know that others should be asking for but they haven't asked you and you haven't told them?		
20	What are the mechanisms for feedback?		
21	How do you know that knowledge is getting to the right places and that action is being taken?		
22	What else should I know?		

Appendix 7. Template for Schedule 3—SHE Scheme of Delegation

1 Item	2 Origin What has been delegated to me?	3 Identify key aspects (Why)	4 Discharge of responsibility (How)	5 Ownership (Who)	6 Actions necessary	7 Critical success factors	8 Assurance process and information
1							
2							
3							
4							
5							

Appendix 8. List of UK Major Incident Investigations

1. The Flixborough Disaster: Report of the Court of Inquiry.
Department of Employment,
ISBN: 0113610750, HMSO, 1975.
2. The Explosion at Laporte Industries Ltd., Ilford, 5 April 1976
Health and Safety Executive,
ISBN: 0118803336, HMSO, 1976.
3. Canvey: An Investigation of Potential Hazards from Operations in the Canvey Island/Thurrock Area.
Health and Safety Executive,
ISBN: 011883200X, HMSO, 1978.
4. The fire and Explosion at Braehead Container Depot, Renfrew, 4 January 1977.
Health and Safety Executive,
ISBN: 0118832204, HMSO, 1979.
5. The Hoist Accident at Littlebrook 'D' Power Station.
Health and Safety Executive,
ISBN: 0118832735, HMSO, 1981.
6. The Brightside Lane Warehouse fire: A Report of the Investigation into the Effects of the fire at the National Freight Consortium Warehouse Building, Brightside Lane, Sheffield, 14 December 1984.
Health and Safety Executive,
ISBN 0118838466, HMSO, 1985.
7. The Abbeystead Explosion: A Report of the Investigation by the Health and Safety Executive into the Explosion at the Valve House of the Lune Wyre Transfer Scheme Abbeystead, 23 May 1984.
Health and Safety Executive,
ISBN: 0118837958, HMSO, 1985.
8. The Putney Explosion: A Report of the Investigation by the Health and Safety Executive into the Explosion at Newham House, Manor fields, Putney, 10 January 1985.
Health and Safety Executive,
ISBN: 0118838180, HMSO, 1985.
9. The Rutherglen Explosion: A Report of the Investigation by the Health and Safety Executive into the Explosion at Kingsbridge Drive, Rutherglen, Glasgow, 29 November 1985.
Health and Safety Executive,
ISBN: 0118838709, HMSO, 1986.
10. The fires and Explosion at BP Oil Grangemouth Refinery Ltd.: Report of the Investigations by the Health and Safety Executive into the fires and Explosion at Grangemouth and Dalmeny, Scotland, 13 March and 11 June 1987.
Health and Safety Executive,
ISBN: 0118854933, HMSO, 1989.
11. The Hillsborough Stadium Disaster 15 April 1989. Inquiry by the Rt Hon. Lord Justice Taylor. final Report.
Home Office,
ISBN 0101096224, HMSO, 1990.
12. The Peterborough Explosion: A Report of the Investigation by the Health and Safety Executive into

- the Explosion of a Vehicle Carrying Explosives at Fengate Industrial Estate, Peterborough, 22 March 1989.
Health and Safety Executive,
ISBN: 0118855727, HMSO, 1990.
13. A Report of the Inquiry into the Accident that Occurred at Chorleywood on the Metropolitan Line of London Underground Limited, 16 May 1990.
Health and Safety Executive,
ISBN: 0118863819, HMSO, 1992.
14. A Report of the Inquiry into the Collision of a Passenger Train with the Buffer-Stops that Occurred at Walton-on-Naze Station, 12 August 1987.
Health and Safety Executive,
ISBN: 0118820869, HMSO, 1992.
15. A Report of an Inquiry into the Collision that Occurred at Newton Junction, 21 July 1991.
Health and Safety Executive,
ISBN: 0118820540, HMSO, 1992.
16. Appleton Inquiry Report: A Report of an Inquiry into Health and Safety Aspects of Stoppages Caused by fire and Bomb Alerts on London Underground, British Rail and Other Mass Transit Systems.
Health and Safety Executive,
ISBN: 0118863940, HMSO, 1992.
17. Release of Chemicals from International Biosynthetic Ltd.: A Report of the Investigation by the Health and Safety Executive into the Chemical Emission from International Biosynthetics Ltd., 7 December 1991.
Health and Safety Executive,
ISBN: 0118821547, HMSO, 1993.
18. The fire at Allied Colliods Limited: A Report of HSE's Investigation into the fire at Allied Colloids Ltd., Low Moor, Bradford, 21 July 1992.
Health and Safety Executive,
ISBN: 0717607070, HSE Books, 1993.
19. Passenger Falls from Train Doors: Report of an HSE Investigation.
Health and Safety Executive,
ISBN: 0118821253, HMSO, 1993.
20. The fire at Hickson and Welch Ltd.: A Report of the Investigation by the Health and Safety Executive into the Fatal fire at Hickson and Welch Ltd., Castleford, 21 September 1992.
Health and Safety Executive,
ISBN: 071760702X, HSE Books, 1994.
21. Extensive Fall of Roof at Bilsthorpe Colliery: A Report of HSE's Investigation into the Extensive Fall of Roof at Bilsthorpe Colliery, Nottinghamshire, 18 August 1993.
Health and Safety Executive,
ISBN: 0717607003, HSE Books, 1994.
22. The Chemical Release and fire at the Associated Octel Company Limited: A Report of the Investigation by Health and Safety Executive into the Chemical Release and fire at the Associated Octel Company, Ellesmere Port, 1 -2 February 1994.
Health and Safety Executive,

- ISBN: 0717608301, HSE Books, 1996.
23. Railway Accident at Cowden: A Report of the Inquiry into the Collision between Two Passenger Trains which Occurred at Cowden, 15 October 1994.
Health and Safety Executive
ISBN: 0717610764, HSE Books, 1996.
24. Railway Accident at Rickerscote: A Report of the Investigation into the Derailment of a Freight Train and the Subsequent Collision with a Travelling Post Office Train, 8 March 1996.
Health and Safety Executive
ISBN: 071761171X, HSE Books, 1996.
25. The Explosion and fires at the Texaco Refinery, Milford Haven: A Report of the Investigation by the Health and Safety Executive into the Explosion and fires on the Pembroke Cracking Company Plant at the Texaco Refinery, Milford Haven, 24 July 1994.
Health and Safety Executive
ISBN: 0717614131, HSE Books, 1994.
26. Railway Accident Near Ais Gill: A Report on th Fatal Accident that Occured near Ais Gill, on the line from Carlisle to Leeds in the Railtrack North East Zone, 31 January 1995.
Health and Safety Executive
ISBN: 0717614778, HSE Books, 1997.
27. Railway Accident at Watford: A Report of the Investigation into the Collision that Occurred at Watford South Junction on the Line from Euston to Crewe in the Railtrack Midlands Zone.
Health and Safety Executive
ISBN: 0717615103, HSE Books, 1998.
28. Railway Accident at Bexley: A Report on the Investgation into the Derailment of a Freight Train at Bexley on the Dartford Loop Line of Railtrack Southern Zone, 4 February 1997.
Health and Safety Executive
ISBN: 0717616584, HSE Books, 1999.
29. Walkway Collapse at Port Ramsgate: A Report on the Investigation into the Walkway Collapse at Port Ramsgate, 14 September 1994.
Health and Safety Executive
ISBN: 0717617475, HSE Books, 2000.
30. The Collapse of NATM Tunnels at Heathrow Airport: A Report on the Investigation by the Health and Safety Executive into the Collapse of New Austrian Tunnelling Method (NATM) Tunnels at the Central Terminal Area of Heathrow Airport, 20 – 21 October 1994.
Health and Safety Executive
ISBN: 0717617920, HSE Books, 2000.
31. The Train Collision at Ladbroke Grove, 5 October 1999: A Report on the HSE Investigation.
Health and Safety Executive
ISBN: 0717619184, HSE Books, 2000.
32. The Southall Railway Accident Inquiry Report.
Uff, J.,
Health and Safety Commission,
ISBN: 0717617572, HSE Books, 2000.
33. The Ladbroke Grove Rail Inquiry. Part 1 Report.
Cullen, W.D.,

- Health and Safety Commission,
ISBN: 0717620565, HSE Books, 2001.
34. The Ladbroke Grove Rail Inquiry. Part 2 Report.
Cullen, W.D.,
Health and Safety Commission,
ISBN: 0717621073, HSE Books, 2001.
35. The Southall and Ladbroke Grove Joint Enquiry into Train Protection Systems.
Uff, J. and Cullen, W.D.,
Health and Safety Commission,
ISBN: 0717619982, HSE Books, 2001.
36. The Track Obstruction by a Road Vehicle and Subsequent Train Collisions at Great Heck, 28
February 2001: A Report of the Health and Safety Executive Investigation.
Health and Safety Executive
ISBN: 0717621634, HSE Books, 2002.