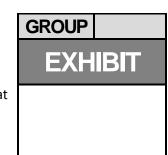


NATIONAL TRANSPORTATION SAFETY BOARD Investigative Hearing

Washington Metropolitan Area Transit Authority Metrorail train 302 that encountered heavy smoke in the tunnel between the L'Enfant Plaza Station and the Potomac River Bridge on January 12, 2015



Agency / Organization

Title

Her Majesty's Railway Inspectorate Safety Culture Inspection Question Set

ISSUE 01: 11 March 2005

Aims of the 5 Safety Culture Indicators

Leadership

There are explicit and continuous steps taken by management to ensure that goals, targets and issues are made clear, and are known to all personnel. An indicator of good safety leadership is that safety is always prioritised over performance.

Two-Way Communication

There are multiple channels for the discussion of safety matters, concerns and goals between and within all levels of the organisation. The flow of information should be in an upwards as well as a downwards direction.

Employee Involvement

Personnel from all levels within the organisation are involved in decisionmaking, safety planning, and providing ideas for improvement. Employee participation and feedback is actively sought.

Learning Culture

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Steps are taken to monitor known problems, identify new ones, detect trends over time and develop effective preventative measures. Efforts are made to ensure that lessons are learnt from incidents, including the wider application to other situations. Intervention measures are introduced for all situations.

Attitude Towards Blame



Developing a just culture is the acceptance that the ultimate responsibility for incidents lies with the organisation, and investigations take full account of multi-causality. The purpose of investigations is not to assign retribution or blame, but to learn from incidents.

How to use this Question Set

This booklet has been divided into six sections that correspond to six scenarios.

Page 1 of each scenario section provides:

- The scenario topic. This should be used to provide context for the interview questions.
- Information about who should be interviewed and what information the scenario could reveal about these people.
- A description of the scenario to help set the scene before starting the interview.
- Question prompts that may be used to direct the interview.

Pages 2 and 3 of each scenario section provides:

- The scenario topic.
- Examples of evidence points that are indicative of satisfactory and unsatisfactory behaviour or practice for each of the assessment criteria. These can be used to help assess whether the organisation has implemented and is maintaining a positive safety culture.
- The key to the 5 safety culture indicators.

N.B. Both positive and negative points should be identified and reported in relation to each scenario!

Questions

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Safety Management

This scenario should reveal important information about:

- Senior and middle management's commitment to safety in the company.
- Operational staff awareness of safety and how safety is managed.

Setting the Scene: Think about how senior and middle management manage safety.

The following questions may be useful:

- What formal systems are in place for managing safety in the workplace, i.e. safety tours, safety management systems, policies, safety briefings etc?
- Are safety responsibilities defined?
 - Are all personnel, including contractors, aware of their responsibilities for their own safety, and the safety of others?
- Do management spend time in operational areas?
 - How often, and what is the impact?
- How effective are management when they conduct safety tours?
 - Are management aware of the risks in the operational areas?
 - How are the risks identified and the priorities associated with each risk assessed?
- How is the effectiveness of safety management systems/procedures and policies monitored?
 - Does this include any formal trend analysis?
 - How are changes in legal requirements/industry practices tracked, and how is the safety management system updated to reflect these changes?
- Do management involve staff at all levels in safety related decision making?
 - Are there opportunities for operational staff and management to communicate with each other?
- Do management monitor and review employee thoughts, opinions, and feelings concerning the effectiveness of safety management within the organisation?
 - How is this done (i.e. safety climate / culture surveys)?
 - Who takes part in this?
 - Are the results fed back to all staff?

Safety Management

Management Visibility

Satisfactory:

- ✓ There are systems in place to manage safety.
- Regular safety tours of operational areas are conducted (best practice: one hour per week for senior executives, one hour per day for middle managers).
- Safety management systems such as safety tours are used to identify risks and mitigate them.
- ✓ Management give high visibility to improvement programmes.
- ✓There is clear evidence that action lists are developed, signed and tracked.

Unsatisfactory:

- The safety management process is not formalised and entered into managers' schedules.
- Safety management systems serve as a monitoring, auditing and checking function only.
- *Safety issues are not actively sought out by management.
- *Safety issues identified by management are not dealt with, but are just "filed".

Safety Culture/Climate Monitoring

Satisfactory:

✓There are opportunities for operational staff and management to communicate with each other. $[\Lambda]$

- Recipients of the safety culture/climate survey have explained to them, why the survey is being done and how the results will be used.
- The survey results are produced in an action plan to address the most serious weaknesses.
- ✓ Actions are implemented as soon as possible after completion of the survey, and are fed back to the surveyed group as rapidly as possible.
- Issues or areas of weakness are discussed with the respondents to clarify details.
- ✓ There is a dwell time between surveys of 18 months to 2 years.
- ✓ The survey is completed by a representative proportion of the company.

Unsatisfactory:

- *Results are not fed back to the surveyed group in an appropriate manner.
- No, or limited effort, is made to assess safety perceptions of employees within the company.
- *Management's vision of safety is not shared by all staff, and vice versa.
- *No actions or priorities result from the survey.

Safety Management

Employee Involvement in Safety Discussions

Satisfactory:

- Employees are invited to comment on decisions about their job roles that may affect their safety or the safety of others.
- ✓ Safety management methods serve to provide an opportunity to all staff for open discussion of safety, to identify risks and mitigate against these risks.

Unsatisfactory:

- *Employees are not invited to comment on safety.
- *Management use safety tours as an opportunity to talk at operational staff, instead of using this as an opportunity to identify employees' opinions and safety concerns.

Key to indicators:

Leadership

O Two-way communication

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Attitude Towards Blame Employee Involvement

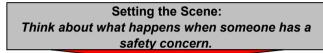
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Safety Concern

This scenario should reveal important information about:

- What senior and middle management do when a safety concern is reported to them.
- What operational staff do when they have a safety concern.



The following questions may be useful:

- What systems are there in place for staff to report safety concerns e.g.confidential systems, approachable management etc?
 - Do staff know who to report safety concerns to?
 - Who do staff actually report safety concerns to?
 - Do staff find it easy to approach management about safety concerns?
- How effective are management in dealing with safety concerns?
 - Do management recognise the report as an issue that needs addressing promptly?
 - Do they deal effectively with organisational, as well as personal safety concerns?
- Do management accept that it is their responsibility to deal with the safety concern, once it has been reported?
- What do management do with the information obtained from the safety concern reports?
 - How often do the issues get resolved, always? occasionally? never?
 - Do staff feel action is appropriate and timely?
- How competent/effective are management in dealing with the safety concerns raised?
- Are staff provided with feedback about the outcome or progress of the reported concern?
- Is the effectiveness of the reporting system ever reviewed?
- Are the issues tracked from the time that they are raised through to closure?
 - How is this done?
 - Is there a budget allocated for the management of safety concerns?

Safety Concern

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Internal Safety Concern Reporting System

Satisfactory:

- ✓There are systems/procedures in place to report safety concerns.
- ✓Clear and easy to follow procedures are in place for safety reporting.
- ✓The system is accessible to all operational staff.
- The reporting system is structured.

Unsatisfactory:

- *There is no system in place for reporting safety concerns.
- *The system is time consuming, or there is inadequate time for reporting.
- *Operational staff are not aware of, or encouraged to use the system.

Approachable Management

Satisfactory:

- ✓ There are opportunities for face-to-face discussion with management.
- ✓ Managers frequently ask if operational staff have any safety concerns.
- ✓ Operational staff report (when asked) that managers are approachable.
- Management take responsibility for dealing with safety concerns once they have been identified.

Unsatisfactory:

×Management fail to make decisions.

- *The same issues are raised at each meeting, but are not resolved.
- *Management have to be sought out, or are rarely available.
- *Management take an 'its not my problem' or 'just live with it' attitude.
- Management resist taking responsibility for safety concerns when they are faced with them.
- Management are seen to be concerned about safety issues, however actions are just "shelved".

Culture of Trust

Satisfactory:

- ✓ Operational staff regularly report concerns when it is appropriate to do so.
- ✓ In general, reports are made concerning a range of issues.
- ✓ The refusal to work system is used and is respected by management.
- Management take active responsibility for dealing with safety concerns once they have been highlighted.

Unsatisfactory:

- *Operational staff concerns are not reported to management for reasons such as:
 - Staff are concerned that the report would get someone else in trouble.
 - Staff perceive that nothing would get done.
 - Employees feel that they may be deemed responsible for causing the issue.

Safety Concern

Safety Concern Investigation and Mitigation Procedure

Satisfactory:

- ✓A prompt and thorough assessment of the risk and its consequences is conducted.
- ✓A corrective action plan is developed to mitigate the concern.
- ✓ Operational staff receive feedback about the outcome and the progress of the report.

Unsatisfactory:

- *The concern is not fully investigated, corrected or prevented.
- *Progress is not monitored or tracked.
- *Timely and effective mitigation measures are not applied to resolve the concern.

Safety Concerns Log

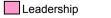
Satisfactory:

- ✓All concerns are logged for reference by all staff.
- ✓ Repeat or similar concerns are gauged and analysed.
- ✓The information is accessible to all.

Unsatisfactory:

- *There is no log for reported concerns.
- *The log is not monitored or updated on a regular basis.

Key to indicators:



O Two-way communication

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Attitude Towards Blame Employee Involvement Learning Culture

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Change Management

This scenario should reveal important information about:

- How changes are controlled.
- How senior and middle management involve operational staff in the change process.
- The extent to which operational staff are consulted and involved in safety related decisions.

Setting the Scene: Consider a time when the company underwent a significant change.

The following questions may be useful:

- Are proposed changes planned using a structured method?
- Under the change process is a log maintained of the key risks and recorded action plans for the management of these risks?
- Are changes implemented in a controlled manner?
 How is this done?
- Who is responsible for identifying and involving the appropriate staff in this process?
- Are there systems/procedures in place to assess the potential impact of the impending change?
 - Is a training needs analysis conducted?
 - How are changes to procedures, roles and responsibilities managed?
- How are staff at all levels involved in the change management process?
 - Are staff given the opportunity/encouraged to comment on proposed changes before they are implemented?
 - Do management involve staff in an effective and timely manner?
 - Do management recognise the limitations of not involving staff in the change process?
- How are staff informed of the change if they are not adequately involved in the change management process?
 - When is this done?

Change Management

Employee Participation in the Change Processes

Satisfactory:

- ✓Key personnel in the change management team ensure that the end user is consulted.
- ✓ Discussion groups and briefings etc. are used to inform affected individuals.
- End-users are consulted and have the opportunity to contribute to decisions through activities such as workshops and user trials.
- Employees are actively encouraged to participate in all stages of the change process.
- ✓There is a structured and planned process to manage change.
- ✓The procedures to manage change are usable, and are easily applied.

Unsatisfactory:

- *Affected parties are not kept sufficiently informed.
- *End-users contribute only at the end of the design process.
- There is a lack of evidence that the information gained from workshops, discussion forums etc. is used.
- *Affected parties are not informed about the change until it has been implemented.
- Management fail to recognise the limitations of not involving affected staff in the change process in an effective and timely manner.

Employee Training about the Change

Satisfactory:

✓A training needs analysis is conducted to assess the levels of training required to prepare for the change.

- \checkmark If required, the relevant individuals are trained to the required level of
- competencies before the change takes effect.
- Employees are given the opportunity to comment on, or contribute to the training process.
- Employees understand the training.
- ✓ Competency is ensured and maintained.

Unsatisfactory:

- *Employees do not receive sufficient training to maintain operational safety during post-change operations.
- *No training is provided to employees regarding the change.
- Training is not put into place in a timely manner, i.e. training is provided several days/weeks/months after the change has been implemented.
- There are no records of who has / has not been trained, or when training has taken place.

Change Management

Employee Motivation

Satisfactory:

- Employees report that they feel involved and included in the change process.
- Employees hold positive attitudes towards the planned changes.
- Employees have trust in management to implement an efficient and successful change.
- Employees have the opportunity to report their thoughts on the change programme.

Unsatisfactory:

- Employees are mistrustful of management's ability to implement the change safely.
- *Employees hold negative attitudes towards the change process.
- Employees do not have the opportunity to raise their concerns about the change programme.
- *Changes in roles and responsibilities are not understood.

Active Response to Feedback

Satisfactory:

- ✓There are strategies in place for communicating the outcomes of the consultation process.
- ✓It is ensured that employees receive rapid feedback in response to comments and suggestions made.
- Every attempt is made to incorporate employees' suggestions and comments into the design process.

Unsatisfactory:

*Employees report not receiving adequate feedback following consultation.

*No feedback is provided to operational staff about the suggestions that they have made.

O Two-way communication

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Attitude Towards Blame Employee Involvement

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Transfer of Information About Shift Duties

This scenario should reveal important information about:

- How senior and middle management communicate safety critical information (including personal safety responsibilities) to operational staff.
- The extent to which operational staff receive and understand safety critical information that is communicated to them.

Setting the Scene: Think about the chain of events at the start of a new shift or when there is a handover of duties.

The following questions may be useful:

- How is safety related information communicated to staff at the start of a new shift, shift handover, or where a handover of duties is required?
- Who, or what, is responsible for communicating this information to staff? - Is this communication effective?
- How is it determined what information must be communicated?
- What type of information is communicated?
 Are all risks and mitigation measures communicated?
- What are the consequences of not communicating the information?
- What is done to ensure that the information communicated has been understood accurately?
 - Do staff have the necessary information to operate their shifts adequately? - Are all the risks and mitigation measures understood?
- Is the communication system reviewed and monitored for its success?

Transfer of Information About Shift Duties

Safety Information Communication System

Satisfactory:

- ✓ Safety related information is communicated at the start of the shift or whenever there is a handover of duties.
- ✓A range of safety related issues are covered, including both personal safety and major accident avoidance, and how to mitigate against these.
- ✓ Managers are on hand to deal with safety related concerns or issues.
- ✓The communication system is reviewed and monitored for its success.
- ✓ Safety information is communicated face-to-face by management to all levels and/or via notices, log books etc.

Unsatisfactory:

- *Not all safety issues are covered (e.g. information is limited only to one or two 'hot topics', neglecting other areas).
- Management have to be actively sought out, and/or staff are reluctant to approach them.
- The communication system fails to prepare the individual to operate their shift adequately and safely.
- *Risks are stated, however there is a failure to communicate how to mitigate against these.
- *The adequacy of the communication system is reviewed infrequently.

Employee Awareness of Accountabilities

Satisfactory:

- ✓All staff are aware of their safety responsibilities.
- Regular checks are carried out to ensure that all staff are aware of their responsibilities (for instance using spot checks or briefing attendance signature records).

Unsatisfactory:

- *Safety responsibilities are unclear and changeable.
- *Temporary changes are not always considered.
- Management and operational staff generally fail to take responsibility for communicating the safety information.

Comprehension of Safety Information

Satisfactory:

- ✓ Staff are proactive in their approach to safety information.
- ✓ Staff have all the information necessary to conduct their shift safely.

Unsatisfactory:

- *Staff are unable to give an overview of the safety information that applies to them.
- *Approaches used to disseminate information are limited.
- *The information communicated is ambiguous, or difficult to comprehend.

Key to indicators:

Leadership

Two-way communication

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Attitude Towards Blame Employee Involvement Learning Culture

Time-Critical and Degraded Situation

This scenario should reveal important information about:

- The emphasis senior and middle management place on safety compared to performance, and how this is communicated to operational staff.
- Whether commitment to safety is reflected in operational staff behaviour during time-critical or degraded situations.

Setting the Scene: Think about when there was a time critical and difficult / degraded situation.

The following questions may be useful:

- How is safety managed during a time critical and difficult / degraded situation?
- Do staff report feeling adequately prepared to deal with this type of situation?
- How is the message communicated to staff that safety is the highest priority?
- Do staff understand their roles and responsibilities in this situation?
- Are there any circumstances during which a member of staff is placed under pressure to meet performance objectives?
 - Where does this pressure come from?
 - Are management aware of where pressure is being applied and by whom?
 - Do management understand the risks posed when performance is prioritised?
 - Are management willing to take responsibility for any issues that emerge as a result of prioritising performance over safety?
- Do management check that safety is being prioritised by operational staff? - How is this done?
- Who is responsible for communicating the safety priority message to operational staff?

- How do management remain confident that staff understand the balance between safety and operational performance?

• Are reviews conducted to ensure that management prioritise safety procedures?

Time-Critical and Degraded Situation

Safety Prioritised Behaviour

Satisfactory:

- Employees have the knowledge, skills and resources available to deal with the situation, without compromising safety.
- ✓ Safety is put first throughout.
- Employees report that there is no pressure from management or peers to maintain performance standards at the cost of safety.

Unsatisfactory:

- *Employees report a pressure to maintain performance standards, potentially at the cost of safety.
- *Safety has been compromised at the expense of performance.

Performance vs. Safety Management Priority

Satisfactory:

- Management stipulate clearly and repeatedly to operational staff that safety is the first priority, using methods such as:
 - Verbal communication (safety tours, briefings, safety days).
 - Written communication (notices, within job profiles, safety publications and newsletters).
- ✓Management demonstrate/promote the commitment to safety to customers and clients.
- ✓ There is a sufficient health and safety budget.
- Management monitor the emphasis placed upon safety by staff e.g. via spot checks.

Unsatisfactory:

- Evidence that safety could be swamped by the noise around performance e.g. hard hitting performance campaign.
- *Commitment to achieving performance targets that is greater than demonstrated for safety.
- The emphasis placed upon performance at the expense of safety is not mentioned, and there is no "buy in" to this message.

Time-Critical and Degraded Situation

Safety Accountability

Satisfactory:

- ✓ Management take responsibility for the consequences when they prioritise performance over safety.
- Everyone is clearly informed and are aware of their roles and responsibilities in a time-critical and degraded situation.

Unsatisfactory:

- *Management do not take responsibility for consequences when they prioritise performance over safety.
- *Clear roles and responsibilities are not communicated adequately or understood by all staff in a time- critical and degraded situation.

Key to indicators:

Leadership

O Two-way communication

Attitude Towards Blame Employee Involvement Learning Culture

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Incident Management

This scenario should reveal important information about:

- The actions taken by senior or middle management to investigate the underlying causes of an incident, and then implement mitigating measures.
- The involvement of operational staff in the investigation and disciplinary process.

Setting the Scene: Think about the chain of events following an incident.

The following questions may be useful:

- What proportion of incidents are investigated?
- Upon what criteria is an incident selected for investigation?
- How was/is the specific incident investigated?
- Who is responsible for investigating an incident, and why?
- What factors did/do the incident investigation procedure specifically investigate?
 - Is this sufficient to identify what really happened?
- How is/was the individual involved in the incident treated?
 Was this appropriate?
- How is/was the cause of the incident determined?
- Are/were any actions taken to prevent the incident from occurring again?
 - Are/were immediate as well as long-term avoidance actions considered/ implemented?
 - How is/was the risk of this type of incident re-occurring identified, and mitigated?
 - How quickly were/are actions implemented and understood by relevant parties?
- What disciplinary procedures were/are applied here, and how was/is this done?
 - Was/is this effective?
- Were/are the recommendations from the investigation communicated throughout the company?
 - Who was/is this communicated to?
 - What and how was/is this disseminated throughout the company, i.e. information pertaining to what actually happened, recommendations based on the incident, or just the outcome of the incident?
 - How was/is it confirmed that the information disseminated is understood by everyone?

Incident Management

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Incident Investigation System

Satisfactory:

- ✓A thorough root cause analysis investigates all possible underlying causes and events leading to the incident.
- ✓A preventative and corrective action plan is developed to prevent re-occurrence.
- ✓A key individual (or individuals) is/are designated to manage and supervise this process.
- ✓ The investigation process is completed within a sensible (usually prompt) time.

Unsatisfactory:

- The investigation does not commence immediately, or is drawn out over an inappropriate length of time (e.g. over several months).
- The investigation focuses on local or obvious faults, or individual failures and neglects other 'hidden' factors e.g. industry or company wide processes.
- *No efforts are made to ensure that the incident does not occur again.
- *The immediacy of responding is inadequate.

Fault Allocation Process

Satisfactory:

- ✓ Care is taken not to apportion blame before the root cause analysis is complete.
- ✓ The purpose of the situation is to learn from the incident, rather than to apportion blame.

Unsatisfactory:

*Blame is apportioned or insinuated prior to any investigation commencing.

*Blame is apportioned until the individuals involved are proven 'not guilty'.

Incident Management

Disciplinary Process

Satisfactory:

✓The procedures distinguish clearly between different degrees of culpability (e.g. blameless, system- induced or reckless errors).

Unsatisfactory:

- There are no clear procedures for deciding upon the relevant disciplinary actions.
 Disciplinary procedures are limited in distinguishing between different degrees of
- blameworthiness.

Feedback Systems

Satisfactory:

- ✓There are strategies in place for communicating the outcomes of the investigation e.g. briefings, newsletter, articles in corporate magazines and notices.
- ✓ Preventative campaigns are installed throughout the organisation to raise awareness of the factors contributing to the incident.
- Hard (equipment) as well as soft (training and procedures) actions are highlighted.

Unsatisfactory:

- Communication does not target all safety-critical employees and is limited to certain areas.
- The information communicated is difficult to comprehend, and fails to serve its purpose.
- *There is no personal feedback to those involved in the incident.

Leadership

O Two-way communication

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Attitude Towards Blame Employee Involvement Learning Culture

Developed under the HMRI Rail Delivery Programme by Human Engineering Limited.

ANNEX B: HMRI SAFETY CULTURE INSPECTION POCKET CARD

Side A: Assessment Criteria organised according to Indicators

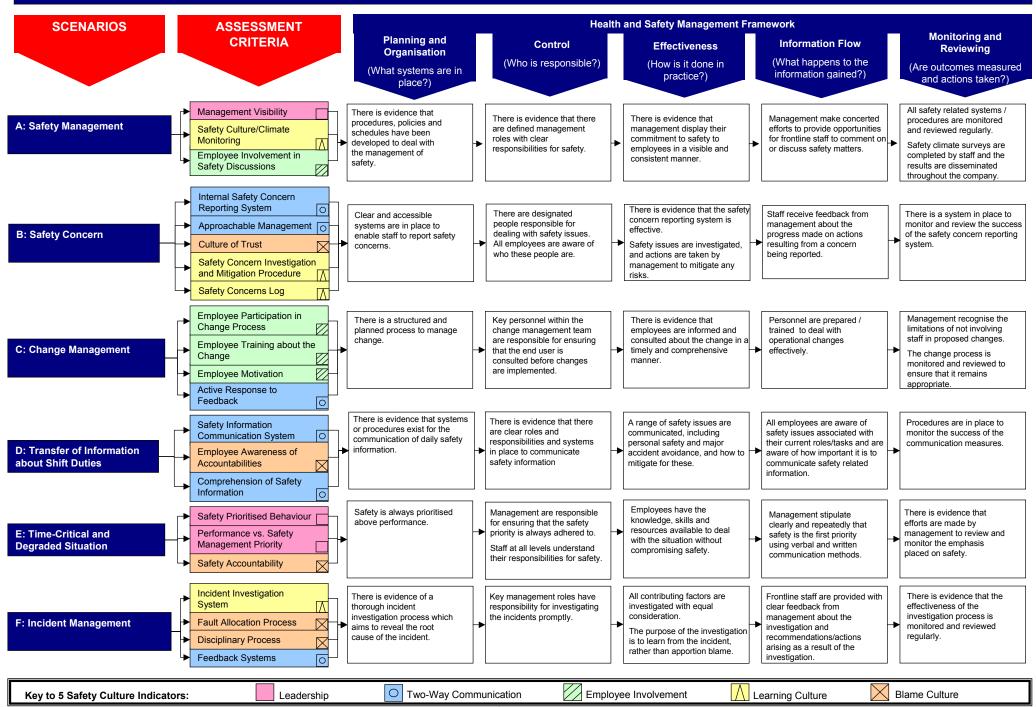
Leadership			
Management Visibility			
Performance vs. Safety Management Priority			
Safety Prioritised Behaviour			
Two-Way Communication			
O Internal Safety Concern Reporting System			
Approachable Management			
Active Response to Feedback			
Safety Information Communication System			
Comprehension of Safety Information			
Feedback Systems			
Employee Involvement			
Employee Involvement in Safety Discussions			
Employee Participation in Change Processes			
Employee Training about the Change			
Employee Motivation			
Learning Culture			
Safety Culture/Climate Monitoring			
Safety Concern Investigation and Mitigation Procedure			
Safety Concerns Log			
Incident Investigation System			
Attitude Towards Blame			
Culture of Trust			
Employee Awareness of Accountabilities			
Fault Allocation Process			
Disciplinary Process			
Safety Accountability			

Side B: Assessment Criteria organised according to Scenarios

Safety Management			
	Management Visibility		
\square	Employee Involvement in Safety Discussion		
\land	Safety Culture/Climate Monitoring		
Safety Concern			
0	Internal Safety Concern Reporting System		
0	Approachable Management		
\mathbf{X}	Culture of Trust		
\wedge	Safety Concern Investigation and Mitigation Procedure		
\wedge	Safety Concerns Log		
Char	nge Management		
	Employee Participation in Change Processes		
	Employee Training about the Change		
	Employee Motivation		
0	Active Response to Feedback		
Transfer of Information About Shift Duties			
0	Safety Information Communication System		
0	Comprehension of Safety Information		
\times	Employee Awareness of Accountabilities		
Time-Critical or Degraded Situation			
	Safety Prioritised Behaviour		
	Performance vs. Safety Management Priority		
\mathbf{X}	Safety Accountability		
Incident Management			
Δ	Incident Investigation System	K Leadership	
\mathbf{X}	Fault Allocation Process	E O Two-Way Communication	
\mathbf{X}	Disciplinary Process	Y Z Employee Involvement	
	Feedback Systems	Attitude to Blame	

ANNEX C: HMRI SAFETY CULTURE INSPECTION OVERVIEW DIAGRAM

HMRI SAFETY CULTURE TOOLKIT OVERVIEW DIAGRAM



ANNEX D: HMRI SAFETY CULTURE INSPECTION INSPECTORS' GUIDE