



ONR GUIDE			
Guidance for undertaking Leadership and Management for Safety Reviews			
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1. INTRODUCTION

- 1.1 Leadership and management for safety (LMfS) is a key determinant of safety culture and nuclear safety outcomes. ONR's expectations for LMfS are set out in ONR's Safety Assessment Principles (SAPs) for Nuclear Facilities (MS.1 to MS.4); these set the foundation for the effective delivery of nuclear safety, including the development and maintenance of a positive safety culture. SAPs provide inspectors with a framework for making regulatory judgements on the safety of activities.
- 1.2 There is an expectation that once a year ONR programmes undertake evaluations of appropriate licensee's performance against each of the four LMfS SAPs:
- **MS.1 Leadership:** *"Directors, managers and leaders at all levels should focus the organisation on achieving and sustaining high standards of safety and on delivering the characteristics of a high reliability organisation";*
 - **MS.2 Capable organisation:** *"The organisation should have the capability to secure and maintain the safety of its undertakings";*
 - **MS.3: Decision making:** *"Decisions made at all levels in the organisation affecting safety should be informed, rational, objective, transparent and prudent";* and
 - **MS.4: Learning:** *"Lessons should be learned from internal and external sources to continually improve leadership, organisational capability, the management system, safety decision making and safety performance".*
- 1.3 The decision as to which licensee's will be reviewed in a given year should be based upon hazard and risk, safety performance and any unique circumstances, for example a major change within the licensee. The decision should be made by the programme delivery lead in consultation with the LMfS inspector and the LMfS professional lead.

2. PURPOSE AND SCOPE

- 2.1 The purpose of an LMfS review is to evaluate a licensee's performance against the four LMfS SAPs to enable the development and resourcing of future intervention plans. The LMfS review also provides for a means to engage with licensees on their LMfS performance and to articulate to stakeholders ONR's view of a licensee's LMfS performance and safety culture; the findings of LMfS reviews, along with other information sources, contribute to the determination of the regulatory priority of sites, as detailed in the chief nuclear inspector's annual report. It is therefore important that the review is scheduled to allow input to the following year's intervention planning.

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- 2.2 It is recognised that undertaking an LMfS review for multi-site licensees poses additional challenges therefore careful consideration should be given by each programme as to how to maximise the value of undertaking the review given the available resources and time. It may be desirable to undertake a number of review meetings for a single licensee, followed by a series of one-to-one meetings with ONR inspectors; precisely how the LMfS review process is applied will be dependent upon the scale and complexity of the licensee however the expectation is that each step of this process is undertaken. The approach to the application of this process should be determined at the start of the cycle to allow the inspection team the time to

determine how best to collate information. The expectation is that one overarching LMfS report is produced for a licensee.

- 2.3 Corporate inspectors have been appointed for a number of licensees. In instances where the corporate inspector is not an LMfS professional, the review should be led by an appropriate LMfS inspector, with the active engagement of the corporate inspector.
- 2.4 The output of the LMfS review is a rating and commentary against each of the four LMfS SAPs and the identification of changes to enhance and optimise intervention plans. The components of each of the four LMfS SAPs should be considered when undertaking the assessment. These are as follows:

Safety Assessment Principal	Component
MS.1: Leadership	<ul style="list-style-type: none"> - Leadership attributes - Organisational engagement - Management systems - Governance and oversight
MS.2: Capable Organisation	<ul style="list-style-type: none"> - Organisational structure and resources - Core capability - Control of organisational change - Competence management - Knowledge management
MS.3: Decision Making	<ul style="list-style-type: none"> - Decision making processes - Challenge and questioning - Safety performance indicators
MS.4: Learning Organisation	<ul style="list-style-type: none"> - Learning culture - Learning processes

Table 1: LMfS SAPs and their component parts

3. GOVERNANCE ARRANGEMENTS

- 3.1 The LMfS professional lead should maintain oversight of which LMfS reviews are planned and how they are progressing. The reviews should be documented on the approved template available on HOW2 and may only be approved by the LMfS professional lead. Each year the findings from individual LMfS reviews should be analysed by the LMfS community, under the direction of the professional lead, to identify any industry or sector-level themes which may require a strategic-level intervention.

4. THE LMFS REVIEW PROCESS

4.1 The LMfS review process is set out in Figure 1. The remainder of this document describes the six steps:

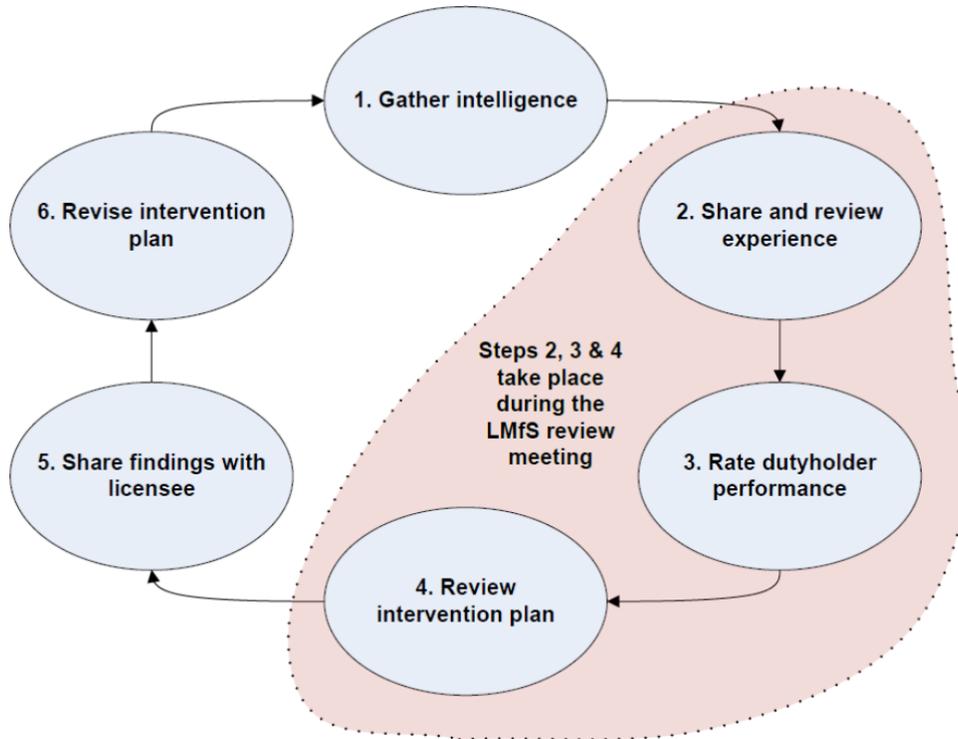


Figure 1: Process to evaluate a dutyholder's LMfS performance

5. STEP ONE: GATHER INTELLIGENCE

5.1 The aim of this step is to gather intelligence to provide an initial view of LMfS performance as a starting point for the review meeting.

5.2 Inspectors should gather intelligence throughout the year; this should not be a one-off activity. Typical sources of intelligence include:

- Intervention and contact records;
- Regulatory interface meeting minutes;
- The records from any level 1, 2 and 3 interface meetings;
- Operational experience and feedback, INF1 reports, safety performance indicators and similar reports;
- Licensee self-assessments e.g. annual review of safety, management review, internal regulator reports;
- Regulatory actions and issues;
- ONR programme review meetings.

5.3 The LMfS inspector should ensure that information (or a summary thereof) is collated and prepared for the formal LMfS review meeting and that the template is pre-populated to provide a focus for the discussions. For each of the four LMfS SAPs, strengths and opportunities for improvement should be identified; these form the basis of the judgement and the assigning of a rating and therefore should be

evidence-based. The preparatory work does not need to be a comprehensive review of everything; this would be unduly burdensome for some of the larger licensees. The information will support but not dominate the review meeting, the main thrust of which will be the sharing of knowledge and intelligence among members of the programme. Where there is uncertainty or a lot of information to evaluate, a series of meetings may be beneficial.

- 5.4 Appendix A provides a list of outcomes which nuclear duty-holders should strive to achieve. ONR consider these to be key organisational factors in ensuring nuclear safety performance; research and experience has continually identified the absence of these outcomes to be the underlying and root causes of many major incidents in the nuclear and other high hazard industries. These outcomes are aligned with the four LMfS SAPs and their components, as detailed in table 1.
- 5.5 It is recommended that the approved template, available on HOW2, is used throughout the year for recording the sources of the evidence and the accompanying narrative.

6. STEP TWO: SHARE AND REVIEW EXPERIENCE

6.1 The aim of this step is to reach a consensus on a licensee's LMfS performance based upon intelligence and experience of interventions.

6.2 The LMfS inspector normally facilitates the review meeting. A typical agenda may include:

- Introduction and purpose
- Overview of the LMfS review process
- Review and rate performance
- Conclusions: discuss the significance of the overall picture for the intervention plan and agree how to communicate as appropriate
- Identification of changes to enhance and optimise intervention plans
- Summing-up: main conclusions and actions

6.3 Attendees will normally include:

- Corporate Inspector;
- Site inspectors;
- Selected specialist inspectors familiar with the site;
- DNSR inspectors (for appropriate defence sites)
- Delivery/programme lead;
- The LMfS professional lead who may wish to attend to moderate the process.

6.4 The discussion should cover experience from all interactions with the licensee. The SAPs and the outcomes detailed in Appendix A should be used as guidance upon which to structure the discussions.

7. STEP THREE: RATE DUTYHOLDER PERFORMANCE

7.1 The aim of this step is to assign a rating to each of the four LMfS SAPs.

7.2 Once a consensus on the licensee's performance has been reached (step 2), each LMfS SAP should be assigned a rating. The SAPs and ONR's Inspection Rating Guide are to be used as the basis for assigning a rating. The ratings are summarised as follows:

ONR Inspection Rating Guide	
Rating	ONR response
Green	No formal action
Amber	Seek improvement
Red	Demand improvement

Table 2: ONR inspection rating guide

7.3 After the meeting the LMfS inspector can expand the narrative, explaining the reasons for the rating and should share and agree this with meeting participants.

7.4 Inspectors should refer to ONR's Inspection Rating Guide to determine if, and at what level, a regulatory issue should be raised.

8. STEP FOUR: REVIEW INTERVENTION PLAN

8.1 The aim of this step is to review the intervention plan to determine whether any changes should be proposed, based upon the review findings.

8.2 The LMfS review meeting attendees should review progress against existing plans and identify any areas/topics that ONR should consider addressing in the future. The output of this step is the identification of changes to enhance and optimise intervention plans. Inspectors responsible for the production of intervention plans should lead this step. Proposed changes, arising from the findings of the review, should be recorded on the approved template, covering the following points:

- Is it a change to, or the introduction of, a new intervention?
- Why is the change necessary?
- What is the risk to nuclear safety?
- What should the timescales for the intervention be?

8.3 This step concludes the review meeting.

9. STEP FIVE: SHARE FINDINGS WITH LICENSEE

9.1 The aim of this step is to communicate the review findings to the licensee.

Once the review meeting has been completed and the findings documented, the findings should be shared with the licensee. How this is done will vary and will depend upon the size, the complexity and ONR's relationship with the licensee. It is ONR's expectation that as a minimum the findings of the LMfS review are discussed with one or more members of the Board of the licensee and the lead internal regulator. Feedback is normally carried out by a combination of ONR's programme/delivery lead, the nominated site inspector, the corporate inspector and the LMfS inspector. Licensees should be encouraged to undertake their own LMfS reviews, normally undertaken by the internal regulator. Differences in perceptions between ONR, the licensee's senior management, and the internal regulator, will often provide additional insights; these differences in perceptions should be explored during this meeting to understand the reasons behind them.

9.2 After this step is complete, the report is formally issued.

10. STEP SIX: REVISE INTERVENTION PLAN

- 10.1 The aim of this step is to revise the intervention plan based upon the findings of the review.
- 10.2 The outcome of the LMfS review, and the nature of the licensee's response, alongside other sources of data and information, informs the development of interventions within the ONR strategy and plans and programme-specific intervention plans for the next year. ONR Guide ONR-INSP-GD-059 – *Guidance for Intervention Planning and Reporting* – sets out the expectations and arrangements for revising intervention plans.
- 10.3 This completes the intervention cycle.

LEADERSHIP AND MANAGEMENT FOR SAFETY OUTCOMES

SAP Component	Outcome
MS.1: Leadership	
Leadership attributes	<ul style="list-style-type: none"> • Leaders have established an organisational approach to safety which stipulates that, as an overriding priority, issues relating to nuclear safety receive the attention warranted by their significance; • The strategic importance of nuclear safety is reflected in business policies and plans, communications and decision making; • Ownership for nuclear safety is clearly defined and understood; • Behavioural expectations have been set; • Reward systems promote the identification and management of risk, encourage safe behaviour and discourage unsafe behaviours and complacency; • Nuclear safety implications are considered in change management processes; • Suppliers and contractors whose operations may have a bearing on the safety of the nuclear facility have appropriate arrangements to demonstrate, support and promote attitudes and behaviours that result in an enduring and strong safety culture; • The management of safety is participative, actively drawing on the knowledge and experience of all staff; • Regular assessments of leadership for safety and of safety culture are undertaken.
Organisational engagement	<ul style="list-style-type: none"> • Leaders actively ensure that staff in their team are familiar with nuclear safety and see it as important in relation to other priorities; • Leaders promote interest in and ownership of nuclear safety, i.e. staff feel they have a say and a stake - not something that is just done to them as passive and reluctant parties; • Leaders talk regularly and constructively about nuclear safety, respond to concerns and give feedback or take action where needed on the performance of team members; • Leaders ensure an open reporting culture.
Management systems	<ul style="list-style-type: none"> • The management system of the licensee controls all processes and activities that impact upon nuclear safety, and ensures that safety requirements are met; • The management system ensures that due consideration of nuclear safety is integral to 'normal' business activity; • The management system is graded and efficient so that attention and resources are targeted where needed, and is to a recognised quality management standard; • Auditing is effective, well-resourced and well-targeted; • Non-conformances are dealt with seriously and root causes addressed as appropriate; • The overall management system and all processes are robustly reviewed and continually improved.
Governance and oversight	<p>The Board of the licensee:</p> <ul style="list-style-type: none"> • Provides strategic direction and leadership; • Is effective at holding licensee senior management to account;

SAP Component	Outcome
	<ul style="list-style-type: none"> • Has appropriate competence and membership; • Has clear roles and responsibilities, collectively and individually; • Receives good quality information on nuclear safety, and members have a 'direct line of sight'; • Targets its discussions well; • Is questioning and challenging.
MS.2: Capable Organisation	
Organisational structure and resources	<ul style="list-style-type: none"> ▪ There are sufficient resources to maintain adequate nuclear safety standards; ▪ Vulnerabilities are known and resilience is managed (e.g. through succession plans); ▪ There is a current nuclear baseline that meets accepted good practice; ▪ There is effective senior management ownership and oversight of nuclear capability.
Core capability	<ul style="list-style-type: none"> • Core capability is understood and managed; • The licensee has processes that identify and secure its core capability including adequate staffing and expertise for Design Authority (DA) and intelligent customer (IC) needs; • The licensee demonstrates it is in effective control of nuclear safety and the requirements of the safety case (ie is an IC) for all contracted work, including specifying, supervising and reviewing output as necessary; • A DA ensures that the design integrity and overall basis for safety of licensee plant and facilities are maintained throughout the full lifecycle, including modifications, changes to operations or requirements and ageing; • The DA is independent of operations and has sufficient authority for its purpose.
Control of organisational change	<ul style="list-style-type: none"> • Organisational changes are assessed, planned and implemented in a manner that takes a conservative view of potential impacts on nuclear safety; • Organisational changes are categorised correctly and salami-slicing is avoided; • The risk assessment and implementation plans for organisational changes are suitable and sufficient; • The use of a phased-approach to organisational changes is appropriate.
Competence management	<ul style="list-style-type: none"> • The licensee has identified and prepared a role profile or similar for all nuclear safety related posts, roles and responsibilities; • There are clear standards of competence for these roles and responsibilities, and clear means for determining whether individuals have those competences; • Training and education is provided that ensures staff are competent and have adequate underpinning knowledge of nuclear hazards and the safety case for their responsibilities and working environment; • Training includes managerial and leadership skills as appropriate; • Training is designed by people with the competence to do so; • Training is refreshed and updated as needed.
Knowledge management	<ul style="list-style-type: none"> • There is a system which ensures knowledge is captured and communicated within the organisation in a systematic, appropriate and reliable manner to all those who need to make safety decisions; • Knowledge is recognised as a strategic asset; • The role of knowledge management in managing nuclear safety is

SAP Component	Outcome
	<p>understood;</p> <ul style="list-style-type: none"> • The organisation employs a range of techniques to ensure that knowledge valuable for nuclear safety is captured and retained; • Significant events in the history of the organisation are well-documented, understood and periodically re-visited (through briefs, seminars and tool-box talks) to ensure that the lessons from them are retained in the corporate memory.
MS.3: Decision Making	
Decision making processes	<ul style="list-style-type: none"> • There is an organisational approach to safety which stipulates that, as an overriding priority, issues relating to nuclear safety receive the attention warranted by their significance; • The strategic importance of nuclear safety is reflected in business policies and plans, communications and decision-making; • Decision making is evidence-based; • Decision making is based on processes which ensure that conflicts between safety and other business goals are recognised and appropriately resolved; • Decisions cater for the potential for error, uncertainty and the unexpected; • Decisions taken in the face of uncertainty or the unexpected are appropriately and demonstrably conservative.
Challenge and questioning	<ul style="list-style-type: none"> • There is a culture that invites and encourages challenge in relation to safety; • Independent challenge occurs effectively and by design for all key decisions, including at Board level; • Decisions at all levels are transparent, rational and prudent, and give nuclear safety a high priority; • The Nuclear Safety Committee is robust and enquiring, and gives good advice where needed; • There is an internal regulation function that is adequately and competently resourced , given due respect, and which has an appropriate programme of activities; • The internal challenge function enables the licensee to understand how others would see it.
Safety performance indicators	<ul style="list-style-type: none"> • Safety performance indicators (SPIs) are used at all levels within the organisation to monitor nuclear safety performance; • SPIs have been developed which monitor the controls identified in the safety case(s), providing assurance that risks control systems are operating effectively at all times; • SPIs are in place that are capable of providing early indications of danger; • SPIs are monitored routinely by the licensee's top management; • SPIs include leading indicators (predicators of future performance) as well as lagging indicators (evidence of past performance); • The organisation understands that not all SPIs have the same value, and that operational indicators (those linked to operating rules, safety mechanisms etc) have a greater value and prominence than generic and programmatic indicators (number of people trained, audits completed to an agreed timescale etc).
MS.4: Learning Organisation	
Learning culture	<ul style="list-style-type: none"> • Staff at all levels are encouraged to look for learning opportunities and improvements; • All areas (eg Board, facilities, projects) show a 'pull' for learning information

SAP Component	Outcome
	and can explain what they have learnt; <ul style="list-style-type: none"> • Leaders foster openness and trust, and show learning themselves; • Changes are based on an understanding of why problems exist.
Learning processes	<ul style="list-style-type: none"> • The licensee shows real and broad learning from experience; • Active and diverse means are used to seek out learning, including external; • Learning and indicators are used to inform a clear, objective view of nuclear safety performance.