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EXECUTIVE SUMMARY

The Regulatory Assurance function (RAf) has carried out an assurance review of ONR guidance, documentation and processes in line with the 2019/20 Regulatory Assurance programme for Q2 2019[1]. The ONR Regulatory Assurance lead has endorsed the scope of this review.

This review supports ONR Strategic Theme 4 - 'Developing a high performing and sustainable organisation' and Strategic Theme 2, "Inspiring a climate of stakeholder respect, trust and confidence", both of which form part of the ONR Strategic Plan 2016-2020.

In accordance with instructions from the Chief Nuclear Inspector, as with all reviews carried out during 2019 this review also considers the requirements of IRRS. In this case it is IRRS Module 9 associated with "effective regulatory bodies having processes for developing, reviewing, updating, publishing, and distributing regulatory standards and guides" that is relevant.

This review relates directly to ONR strategic risk 010 – "efficient and effective regulation by ONR", as well as aspects of several Divisional level risks relating to management system and document control.

This review aimed to fully consider all five core ONR Purposes as defined in the Energy Act 2013. However, during the initial research it was identified that:
i)   guidance, documentation, and processes associated with the SyAPs implementation phase are already scheduled for review by Regulatory Oversight, and
ii)   guidance, documentation and processes associated with the development of the UK State System of Accountancy and Control (UKSSAC) are under review by the SSAC Project Board (which includes participation by Regulatory Assurance).
 As such, in the interests of proportionality, these areas while not excluded outright, were not areas of particular focus during this review.

The majority of the findings of this review, relating to guidance, documentation and processes across Regulatory Directorate would not in isolation have been considered particularly significant. However, the review identified document control issues associated with the publication of the ONR Safety Assessment Principles (SAPs). The ONR SAPs are arguably the most important, high-visibility document published by ONR, within the inspector cadre and with those we regulate. This review identified that;
    i)   There have been eight revisions to the document since the last formal 2014 issue was released, comprising a total of several hundred individual changes.
    ii)   The cover and revision history continue to state that the SAPs are at 2014 Rev. 0 and list no amendments, so a cursory check of the document would not reveal that the document has been extensively revised.
    iii)   The latest revision, still dated 2014 Rev. 0, includes references to 2017 legislation and such a clear anomaly in such an important ONR published document is disappointing.
A sample group of 15 inspectors were consulted and ten were found to be holding an outdated reference copy of the SAPs and the inspectors were not aware that the SAPs had been updated since 2014. Staff consulted during the course of this review stated that the

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[1] ONR Integrated Audit and Assurance Plan for 2019/20 - Rev 1, CM9 2019/80814

issue of document control of the SAPs had been raised with senior ONR staff in past years; however, no corrective action was taken. Staff members indicated that, having raised their concerns once, they had been unwilling to repeatedly press management for remedial action. It is believed that this reticence may reflect the poor organisational culture prevalent at that time. It was very disappointing that staff concerns were not acted upon.

Overall, this review makes the three recommendations below, notes seven observations, and identifies one aspect of potential good practice.

	Recommendations
1	Amend the revision status of the ONR SAPs and accompany this with a suitably scaled announcement to staff and stakeholders that includes an outline description of the changes made. This task should be undertaken as a matter of urgency.
2	Conduct a wider and fully comprehensive review of ONR guidance to ensure that no similar document control anomalies exist. Also, identify and implement procedures to maintain robust document control of all such documents in future.
3	Observations 1-7 arising from this review should be sentenced and followed-up as appropriate.

In carrying out this review only this example of failed document control concerning the SAPs has been identified. However, given the importance and visibility of this document and the significance of the review findings, an assurance rating of limited is considered appropriate as the framework of control has been confirmed as having significant weaknesses.

It is important to note, and I positively welcome, that during the drafting of this report the position has evolved and good progress is being made to remedy the situation.

Based upon the findings of this review, an assurance rating of LIMITED is given for Guidance, Documentation and Processes.

LIST OF ABBREVIATIONS

CNSC Canadian Nuclear Safety Commission

DNSR Defence Nuclear Safety Regulator

EA   (the) Environment Agency

FANR (UAE) Federal Authority for Nuclear Regulation

GSG   General safety guide

GSR   General safety requirement(s)

HOF   Human and organisational factors

IAEA   International Atomic Energy Agency

MSIP Management systems improvement project

N/A   not applicable

ONR   Office for Nuclear Regulation

RA   Regulatory assurance

RAf   Regulatory Assurance function

SAPs Safety Assessment Principles

SyAPs Security Assessment Principles

SSAC State System of Accountancy and Control

TAGs Technical Assessment Guides

TIGs Technical Inspection Guides

1 REVIEW ASSURANCE

1. The majority of the findings of this review, relating to guidance, documentation and processes across Regulatory Directorate would not in isolation have been considered particularly significant. However, the review identified document control issues associated with the publication of the ONR Safety Assessment Principles (SAPs). The ONR SAPs are among, if not the most important high-visibility document published by ONR, both within the inspector cadre and with those we regulate. This review identified that;

   i) There have been a series of eight occasions where the document has been modified over that originally released, comprising a total of several hundred individual changes.

   ii) The cover and revision history continue to state that the SAPs are at 2014 Rev. 0 and list no amendments, so a cursory check of the document would not reveal that the document has been extensively revised.

   iii) The latest revision, still dated 2014 Rev. 0, includes references to 2017 legislation and such a clear anomaly in such an important ONR published document is disappointing.

   iv) From a group of 15 inspectors surveyed, ten were in possession of an outdated copy and a further two had held such a copy until the recent decluttering exercise.

   v) While it was expressed that this issue had in the past been identified to senior staff, there was an unwillingness to continue to press for prompt remedial action as there remains some reluctance to highlight such issues, a probable after-effect of historic organisational culture.

Review Opinion	In our opinion, ONR guidance, documentation and processes indicate a level of control that is LIMITED	RAG rating[2]	Amber

2 INTRODUCTION

2.1 BACKGROUND

2. The role of the ONR is to regulate the GB Nuclear Industry. The Energy Act 2013 assigns 5 purposes within which this regulation must be delivered:

   i) Nuclear Safety

   ii) Health and Safety

   iii) Nuclear Security

   iv) Nuclear Transport

   v) Nuclear Safeguards

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[2] Assurance rating as defined in Appendix A

Within these core, legally defined purposes, the basic tenet of the organisation is to discharge its functions in a way that is proportionate, accountable, consistent, targeted and transparent. To achieve this ONR relies upon its adherence to guidance, documentation and processes such that it can discharge its role in a way that provides, and *can be seen to provide*, similar outcomes, in similar circumstances, to similar ends.

3.   ONR also incorporates a range of other Directorates to support its regulatory functions but this review focusses on guidance, documentation and processes associated with our regulatory directorate and as such all supporting activities and functions are not considered.

4.   In addition to these core *regulatory* purposes, ONR also undertakes the following activities that are associated with but not expressly part of regulation;

    a.   Conducts Generic Design Assessment (GDA),

    b.   Supports and advises the Department for Business, Energy and Industrial Strategy (BEIS) in response to government's commitment to invest in Advanced Nuclear Technologies (ANTs), which includes the assessment of Small Modular Reactor (SMR) and Advanced Modular Reactor (AMR) designs,

    c.   Co-operates with international regulators on safety, security and safeguards matters of common interest, including associated research, and,

    d.   Seeks to engage with its stakeholders in constructive and effective ways.

5.   I have considered a range of possible standards in determining my expectations for this review. These include relevant ISO and IAEA GSR standards described in para. 7 below, in addition to my own views on the objectives that must be served by our guidance, documentation and procedures. The expectations against which I have prepared this report are, that ONR's guidance, documentation and processes in support of its regulatory functions should be:

    a.   Legally correct and complete.

    b.   Clearly written and free from ambiguity.

    c.   Subject to appropriate quality and peer review measures.

    d.   Adequately controlled.

    e.   Readily available at the point of use.

    f.   Equipped to be responsive where errors or omissions are identified.

6.   Not all of these criteria, however, can be fully considered during this review – (a) and much of (b) require detailed understanding of the subject matter underlying any particular publication, so this review considered expectations (c - f) of the above list, with focus on c and d.

7.   Through consideration of a sample of ONR's guidance, documents and processes, I determined an assurance rating based upon, and summarising, adherence to my fundamental expectations as described in para 5 above. These expectations have been distilled from and are cognisant of;

    i)   The ONR legal basis as defined in the Energy Act 2013.

    ii)   The Introductory text for the ONR SAPs 2014 Rev. 0.

    iii)   IAEA GS-G-13 Functions and Processes of the Regulatory Body for Safety

iv) IAEA GSR-2 Leadership and Management for Safety

v) IAEA SS-23 Modules 9.1 and 9.2[3]

vi) Aspects of relevant ISO standards, including ISO9001

8. In accordance with instructions from the Chief Nuclear Inspector, as with all reviews carried out during 2019 this review also considers the requirements of IRRS [Ref. 1, 2, 3, 4]. In this case it is IRRS Module 9 [Ref. 1] associated with "*effective regulatory bodies having processes for developing, reviewing, updating, publishing, and distributing regulatory standards and guides*" that is relevant. This is aligned with the expectations I have stated in para 5 above.

9. This review relates directly to ONR strategic risk 010 – "efficient and effective regulation by ONR", as well as the following regulatory risks :

- RD005 - *Failure to develop and maintain a comprehensive integrated regulatory management system* (via cause 2 - SAPs, SYAPS, TAGs, TIGs and other guides and instructions do not reflect evolving standards and approaches and are not reviewed and revised within their designated review periods)

- RD005 *Failure to develop and maintain a comprehensive integrated regulatory management system* (via cause 3 - Lack of knowledge of and/or adherence to ONR processes).

- TD004 *Failure to develop and maintain a comprehensive integrated regulatory management system* (via cause 1 - Absence of adequate top level documentation that describes the overall integrated approach, including a coherent set of regulatory policies).

- TD004 *Failure to develop and maintain a comprehensive integrated regulatory management system* (via cause 2 - SAPs, SYAPS, TAGs, TIGs and other guides and instructions do not reflect evolving standards and approaches and are not reviewed and revised within their designated review periods).

- EP&R IA 005 *Internal and External (IRRS) audits identify lack of Governance of EP&R procedures etc.* (via Failure to update EP&R Inspection and Assessment Guides).

2.2 PURPOSE AND SCOPE

10. This review is conducted directly in support of ONR Strategic Theme 4 - '*Developing a high performing and sustainable organisation*' and Strategic Theme 2, "*Inspiring a climate of stakeholder respect, trust and confidence*", both of which form part of the ONR Strategic Plan 2016-2020.

11. This review considers;

i) Relevant findings from earlier RA reviews that have considered aspects of guidance, documentation or processes within their scope. The list of previous related findings that have been considered is at Appendix B.

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[3] Module 9.3 is excluded *res ipsa loquitur* as by making its guidance to inspectors available to duty holders (SAPs, TAGs etc.), ONR *can be no more transparent* in promoting its expectations to interested parties.

ii) Pre-publication quality checks, peer review and external review process adherence and auditability across a range of documents. The sample(s) chosen seek to present a view across the five legal purposes of ONR. The list of documents sampled is at Appendix C.

iii) Adherence with ONR's document control record (DCR) process as associated with the sampled documents. The list of DCRs sampled is at Appendix D.

12. A previous RAf review[4] during Q4 of 2018 had examined the overall management system (MS) within ONR. A characteristic of the transparent way in which ONR regulates its duty holders is our publication of relevant aspects of our own management system, to inform and guide those required to demonstrate compliance and relevant good practice. The scope for this report was drafted to avoid duplication, and to provide a snapshot of progress against that report, together with a more detailed sample of the application of control measures to a number of documents representing guidance to both ONR and dutyholders, across ONR's purposes.

13. ONR is already proceeding with a major Management Systems Improvement Project (MSIP) and I have sought throughout this review to avoid duplication of the efforts being made in that arena. I have however made a number of observations that reinforce some objectives of the MSIP work, in particular the requirement to adopt a formal document quality and management system across ONR.

3 RECORD OF REVIEW OF GUIDANCE, DOCUMENTATION AND PROCESSES

14. I identified a number of individuals across ONR from whom I obtained information. Where necessary, and based upon the initial responses to my questions I then sought additional information, through the sampling of recently produced guidance, documentation and procedures, particularly where it was required in support of identified aspects of good practice, or areas for improvement. I also identified and considered the document control history (ONR Document Control Record (DCR) forms in the most part), where it was possible to do so.

15. I sampled a number of recently produced documents that fall under the general description of ONR Guidance, either as general guidance, or as discipline–specific guidance issued to inspectors (TAGs, etc.). Within that sample, I particularly considered the way in which document control records (DCR) are handled. For those guidance, documents and procedures held on the HOW2 system the DCR is the primary retained auditable record which provides evidence that peer review and quality control processes have been completed, and that, where applicable, comments have been sought from other regulators.

16. Two versions of the ONR DCR form are maintained, one for general guidance and a second, more involved version for TAGs, TIGs, SAPs, etc. This situation has evolved to ensure that TIGs and TAGs are routinely consulted on with other regulators where necessary, and have an appropriate revision number assigned. This system while applied in a relatively informal way, was found to be quite effective for the documents sampled.

17. I did identify inconsistencies in the degree of completion of several DCR forms sampled during this review (Appendix D), some having one or more signatures marked as n/a, or left blank. The structure of the current DCR forms does allow for this but neither DCR

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[4] ONR-RA-REP-18-011 2019/73463

form expressly requires any reasoning or justification to be recorded in the event of non-applicability or non-completion of any particular field or part.

18. I sampled a series of DCR forms relating to guidance published within the Civil Nuclear Security and Safeguards (CNSS) area as part of this review, including Security TAGs. I confirmed in discussions with ONR CNSS staff that there is, for example, no requirement for security-related TAG to be shared for comment with either EA or DNSR, so those fields are not completed / signed off. There is no defined mechanism to include any explanatory narrative on the completed form so the reasoning behind the omission is not captured at the time of completion.

19. I identify as observation 1 that the addition of a simple supporting narrative on the DCR form to capture the reasoning where fields are marked as e.g. n/a, or left blank, would be of significant benefit at any future audit of those DCRs, and enhance the transparency of ONR's decisions in this area.

20. In the case of two of the DCRs sampled I was able to identify several different versions of the form in CM9, in different states of completion. I did not seek to uncover any grounds for this occurrence as I consider that it is relatively common for duplicate documents and/or documents in different revision states to exist on CM9. The finding does however highlight that such duplication / uncertainty over version control exists even in documents forming the quality/audit trail for formal guidance and as such reinforces the requirement for a more formal quality MS system.

21. I identify as observation 2 that the current informal process for publication of TIGs and TAGs to HOW2 requires the support team to confirm and accept the final, completed DCR. If this approach were adopted more widely and the DCR forms were to be captured and filed in a single repository at publication time, this would add clarity to any future audit without being a significant additional burden on that team.

22. While examining documents as part of this review I identified a number of inter-related inconsistencies concerning cross-referencing to other ONR documentation, where some cross- referenced documents had themselves been edited or superseded. As the veracity of any references can only be guaranteed at the point of publication, and ONR documentation spans various publication dates, this is not an unexpected finding. I raise as observation 3 that similarly to the general rider that when creating/updating guidance documents Inspectors should be reminded to always refer to the latest legislation via an approved source (Westlaw, Redgraves Online etc.), it is also necessary to cross-check *internal* references where guidance has been modified, to ensure that the referred information remains extant.

23. Given the status of the ONR SAPs as one of the most important documents ONR publishes, I sought to confirm that appropriate change control was in place and in an auditable form. I initially compared the versions available for download on the ONR external website and on Nucleus, finding them both to be Rev 0 versions of the 2014 SAPs. When comparing with a copy of the 2014 SAPs printed at the time of release (also marked up as Rev 0 of the 2014 edition) I identified, however, a discrepancy in the page count. When followed up, this was confirmed as being due to a total of 545 (mostly insignificant) changes having been made in the document [Ref. 8]. In itself this is not a significant finding as the SAPs like any other publication should be kept up to date with any changing policy or legislation etc. However, and far more importantly, the guidance has been updated but there are errors in version numbering which undermines version control and potentially the correct application in decision making, and confusion could arise around the validity of the SAPs due to inconsistencies in references and numbering. The failure to issue the revised SAPs as a formal Rev 1 results in reputational risk to ONR and elevates the risks captured as cause 2 of risk

TD004 and also cause 2 of risk RD002. While the document has in this instance been revised (in a fashion that initially appears entirely appropriate and complete) ;

- The revision history has not been updated.

- The revision number has not been completed.

- ONR publishes a document dated 2014 Rev.0 that refers to 2017 legislation.

- Considering the importance of the SAPs, my expectation is that there would be some announcement to raise awareness of the changes made but there appears to have been none.

- I identified in a brief survey that most Inspectors find it convenient to hold their own individual hardcopies of the SAPs and are now holding an out of date version. Further to this, they may not be aware of the changes and in the event that they did perform a cross check to the latest edition they would be unlikely to notice that their version is out of date.

- There is a risk that many duty holders will hold hard copies that are now out of date.

- A significant risk has been introduced whereby, when citing the SAPs in an engagement with a duty holder it may be identified that different versions are in use "around the table", but all share the same version number; this would be an embarrassing and reputationally damaging situation.

24. I conducted a survey of 15 inspectors comprising a mixture of assessment and site-facing roles. Of these, two-thirds (10) were currently holding an out of date paper copy of the SAPs as their personal ready-reference. Two of those asked were using paper copies that appeared[5] to be up to date and three no longer held a paper copy post hot-desking, but had previously. This tendency to hold a paper copy is unsurprising given;

    i) the reluctance of some sites to permit laptops, phones and other transmitting devices, (which is an expectation of ONR arising from SAP EHA.10 concerning prevention of electromagnetic interference),

    ii) the fundamental security implications (for some sites), and

    iii) the tendency for inspectors to opt to use an annotated copy to enable them to rapidly locate and cite applicable sections.

25. Importantly, none of the 15 inspectors asked were aware that *any* alterations to the SAPs had been made since initial publication in 2014.

26. The SAPs are clearly marked up on every page as "uncontrolled if not viewed on the ONR website", but a revision number cross-check would lead one to believe that the document has not been revised. This gives rise to a risk of reputational damage and individual inspector embarrassment if identified during an engagement at site.

27. ONR does not currently hold independent accreditation of its own management system. At the time of writing no plans to seek any such endorsement have been announced and recent engagement with both FANR and CNSC have provided support for a view that we should not seek formal accreditation of our management system before it has been fully developed.

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[5] I did not conduct a detailed examination but the page-count matched the very latest version.

28. As a matter of general good practice in document management some of the regulatory guidance in HOW2 (TIGs and TAGs in particular) is, imperfectly, already subject to regular review and revision control. Proper revision control of important documents is also an aspect of compliance with the expectations of IAEA GSR-2 (Ref. 2) and IAEA GSG-13 (Ref. 4), so while *accreditation* may not be deemed necessary, an independent accreditation process would undoubtedly increase the likelihood that weaknesses in ONR's document management processes would be detected early and corrected.

29. The findings of this review are based upon the relatively small (compared to the total number of documents within the ONR MS) sample of documents considered and further investigation will be necessary to fully determine the extent and impact arising from the inconsistencies in document control identified.

30. I can confirm that in discussion with ONR staff responsible for web-authoring it appears that there have been a total of *8 occasions* when the SAPs document has been revised [Ref. 9]. These 8 occasions can be broken down into three groups – an initial group where five changes were made in a very short period immediately following initial publication and 2 further instances in January 2018 and most recently in August 2018. By the normal standards of document control, the SAPs should be at revision 8, or at the very least at revision 3 although this latter position would not be accepted in a robust quality system.

31. I record as recommendation 1 that the current, published version of the 2014 ONR Safety Assessment Principles is urgently edited to reflect that it has been revised and further that this is accompanied with a formal announcement at an appropriate scale, that includes outlining the changes that have been made.

32. The SAPs are just one example of an important, regulatory publication that is issued by ONR. I record as recommendation 2 that where this review has been limited to a sample of regulatory guidance, documentation and processes, a broader and more comprehensive review of other published documents should be considered urgently and used to inform the basis of a proper version control system.

33. A further item that I have identified during this review is that there exists a perceived lack of engagement of ONR staff with the management system. I consider that this is due in part to an artificiality arising from the pattern of access of many items. Those items of guidance with the highest importance and most regular use are viewed frequently and by many staff, leading to their tending to be well reviewed and maintained.

34. Items in the management system that are highly specialised, or which are very infrequently viewed, are subject to a much lower degree of user-scrutiny and are hence more likely to contain errors and omissions. These factors viewed in combination can be taken to reveal that the state/status of much of our guidance is proportional to its importance, and hence that the most important guidance is likely to be in the best condition. I have arrived at this view during my review and will reflect this in my conclusions but I have not raised any specific observation or recommendation.

35. The current administrators of the HOW2 system maintain logs of the review dates for many published items and provide prompts to the document/process owners in advance of their "owned" publications falling out of date. This system is basic, but appears effective in its application to TIGs and TAGs particularly. This system is maintained using a spreadsheet that has some thousands of manually entered items. This is not a particularly efficient process as this is not a good use for a spreadsheet and it leads to the approach being error-prone, but an acceptable degree of document control exists for TIGs and TAGs within that informal system.

36. The current spreadsheet also flags items for review as out of date at the beginning of the month in which they fall due, where in practice they are due for review *during* that month. This issue should be addressed as part of an enhanced document control system and supports my recommendation 2.

37. I identified during this review that significant numbers of ONR's publications representing guidance, documentation and processes share common review dates. This arises from a combination of factors including;

   - A combination of consolidated efforts to refresh our management system prior to earlier IRRS missions (predecessors to the 2019 mission).

   - Similar efforts to support the vesting of ONR as a Statutory Corporation in 2014.

   - The mechanics concerning the initial publication of the SyAPs and the supporting suite of guidance, which were drafted over a period of some months but released concurrently.

38. The alignment of multiple documents with a common review date is as such a historic artefact.

39. While conducting this review I read the documents sampled with a view to identifying any apparent inconsistencies. This led to my identifying a minor inconsistency in NS-INSP-GD-030 Revision 5 where it is stated in the narrative description of a start-up meeting that an important aspect of the start-up meeting is to;

   > *7. Clearly distinguish in the start-up meeting those actions required to be completed prior to the issue of a restart consent, those to be incorporated into the 28 day (or other) report and those on different timescales.*

   This expectation is stated explicitly but does not explicitly form part of either example agenda for start-up meetings given in Annex A to that guide. I have noted this as observation 4.

40. During this review I did attempt to be fully inclusive of all 5 ONR purposes and include light-touch consideration of at least one ONR Safeguards related item of guidance, documentation or procedure. I identified during my investigation that while safeguards documentation exists at very high level, there is currently no operations-level guidance in publication. The outline HOW2 processes have been drafted but the actual underpinning guidance and documentation to support them remains in draft at this time and has, as such, been excluded from this review. The Nuclear Safety, Health and Safety, Transport and Security purposes have been included.

4   INTERSECTION WITH MANAGEMENT SYSTEMS IMPROVEMENT PROJECT

41 RAf review ONR-RA-REP-18-011 made a series of 5 recommendations regarding the ONR Management system. Of these, I have identified three recommendations (Appendix B) where I would consider that reasonable progress should be able to be reported since those recommendations were made, and in any case in advance of the 2019 IRRS mission. These recommendations are made against the governance of the MSIP project, and are being addressed by the regulatory lead for the project.

42 I discussed the authoring of the ONR management system manual with the project regulatory lead and was informed that key individuals from the HOF[6] specialism with a

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[6] Human and Organisational Factors Specialism

particular, proven background in management systems had acted as the lead authors for the manual. I have identified the recognition of the value of, and the use of ONR's own HOF specialists in this area as example 1 of relevant good practice[7].

43 Review of the manual is being conducted by the MSIP project board as a whole and as such is more inclusive (across grades & roles including DDS) than the singleton peer review approach normally used.

44 I record as observation 5 of this review that the process for inclusion of other discipline/topic areas' professional leads (or their nominees) in the review cycle for TAGs and other guidance is currently somewhat ad-hoc in the way that it is applied. While the requirement to avoid overloading PLs with invitations to comment on every item of internal guidance is clear, there is a current lack of a fully consistent approach to inviting their involvement.

45 The mechanism by which errors, omissions and other comments on guidance are identified is currently via the "contact us" button that is present on each HOW2 page. I confirmed through general discussion with staff that this feature is not widely known or understood. I raised this with the HOW2 team who were aware that the mechanism for feedback on guidance was poorly known and I was informed that their expectation was for the replacement user interface to the management system to include better promulgation of this feature. I raise as observation 6 that the feedback system for errors, omissions and other comments on ONR guidance, documentation and procedures while not actively concealed, is also not well promulgated.

46 It has been identified within the MSIP project that user perception of the usefulness of the current HOW2 system is not particularly high, with descriptors such as cumbersome, difficult to search and out of date being cited to support these views. I was informed that the MSIP project sought early and full involvement from the ONR Communications team in support of achieving better staff engagement. The communications team are represented at 3-weekly KIT meetings, but given the perceived current lack of staff engagement with the system and their expertise in this aspect I raise as observation 7 that the ONR Communications team could be more intimately involved. Their expertise could contribute to a management system that delivers increased staff engagement simply by being more engaging in the way it is presented.

47 Overall, while those aspects of ONR guidance, documentation and procedures that are being addressed by the MSIP project were not intended to be a primary focus of this review I have however made one related recommendation (Recommendation 2) and three observations that I would expect to be considered within the scope of the MSIP project.

5   CONCLUSIONS

48 The HOW2 and Nucleus platforms are stated as providing access to 500+ procedures and items of guidance. The majority of staff will however require direct interaction with only a small subset of these routinely, and once any procedure has become familiar, those staff might only need to interact with it significantly in the event that it is revised or updated. There is a much broader range of items that will be accessed much less frequently.

49 The most important, most frequently visited processes and documents are likely to have received the greatest degree of end-user scrutiny at the point of use, and are

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[7] Table 4 refers.

therefore the least likely to contain significant errors or omissions. The same logic applies to the least-used processes and any issues with those documents are less likely to be identified, but are likely to be of lower overall significance. While this appears to be a rather obvious observation it does support a view that the quality and status of ONR documentation is generally proportionate to its importance.

50   This rationale, coupled with the poor visibility to staff of the mechanism which should be used for providing feedback no doubt contributes significantly to the low engagement of staff with the ONR MS, as reported in recommendation 5c of review RA-REP-18-011.

51   The current feedback system for staff to report errors, omissions and other comments on ONR guidance, documents and procedures is not well advertised and could be more agile in the way proposed changes are handled. This relates directly to my expectation f in para 5.

52   The control measures in use for TIGs and TAGs published on HOW2 uses a DCR (document control record) form. Not all the fields on this form are appropriate in every case but there is no clear way in which to record why they are omitted. I raise this as observation 1.

53   While not all documents are controlled with a DCR, even for those that are there is no single repository for completed forms, presenting an audit trail. I raise this as observation 2.

54   Cross-referencing to other ONR documents is a common occurrence but unlike the general rider that legal guidance should always be obtained from an up to date and approved source, no such statement is routinely applied to ONR document cross references. I raise this as observation 3

55   I identified an inconsistency in NS-INSP-GD-030 where the body text expressly requires items for the 28-day (or 6-month) report to be agreed at the restart meeting; this item does not appear in the example agenda for such a meeting. I raise this as observation 4.

56   I identified that the process for inviting the views of other disciplines in documents under review is somewhat ad-hoc at the discretion of the author. This contrasts with the requirement (of the DCR) to consult with EA/DNSR on TIGs and TAGs. I raise this as observation 5.

57   The MSIP project should consider providing a simplified mechanism whereby staff can provide feedback relating to any given MS page or document, logging and tracking that feedback to the appropriate owner for sentencing and action as appropriate. I raise this as observation 6, noting that it is a repeat finding from RA-REP-18-011 which MSIP is currently addressing.

58   The ONR Communications team are involved in the MSIP project but are perceived to be at a distance. Increased involvement in both publicising and shaping the revised MS could significantly contribute to increased staff engagement with the new system. I raise this as observation 7.

59   There have been a significant number of changes to the ONR Safety Assessment Principles (SAPs) since the current 2014 edition was released but these are not reflected in the revision status or change summary. Given the importance and visibility of this publication this should be addressed urgently (Recommendation 1 refers).

60   As captured by my Observation 1, while a partial document management system is in place to manage updates of documents such as ONR TIGs and TAGs through the

DCR process, it permits deviations from the normal control formula without requiring the user to explain those deviations.

61 ONR does not currently implement a comprehensive version control system across all published guidance documentation and processes and I consider this to be a significant shortfall. I have recommended that addressing this issue should be included as part of the MSIP project. (Recommendation 2 refers)

62 The main focus of this review has been against expectations c (quality and peer review measures) and d (adequately controlled) given in para. 5, and it is against those expectations that the majority of my observations and recommendations lie. It is my view that expectation e (availability of guidance, documentation and processes) is effectively met by the current arrangements. While there is the potential for improvement in this area, no findings are raised as I am content that there will be further improvement as a key aim of the MSIP project is to consider this aspect.

63 I raised observation 6 concerning the mechanism for reporting and tracking of errors and omissions within MS documentation. This is now confirmed as among the objectives of the MSIP project.

64 Overall, I have identified a number of minor matters that have attracted associated observations in this report, and one particularly significant group of findings relating to document control of the ONR SAPs;

- The revision history has not been completed.

- The revision number has not been updated

- The published document dated 2014 Rev.0 refers to 2017 legislation.

- Considering the importance of the SAPs, my expectation is that there would be some announcement to raise awareness of the changes made but there appears to have been none.

- I identified in a brief survey that most Inspectors prefer working with an annotated hardcopy of the SAPs and are now holding an out of date version. Further to this, they may not be aware of the changes and in the event that they perform a cross check to the latest edition they would likely believe their version to be up to date.

- There is a risk that many duty holders will hold hard copies that are now out of date.

65 The points raised above leads me to find that an assurance rating of <u>Limited</u>[8] is appropriate, in accordance with the descriptors at Appendix A, insofar as the framework of governance and control has been confirmed as having significant weaknesses.

66 I note that while drafting this report I have become aware that the position on version control in general and particularly in connection with the SAPs has been progressing apace. Revision control of MS documents is currently being applied on a document by document basis in advance of a (yet to be decided) version control system being adopted but I positively welcome this progress. I consider it appropriate to clarify that this report presents a snapshot view that has, in the time spent in authoring and peer review, already been partly overtaken by progress towards a longer-term solution.

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[8] As defined in Annex A

67 This review makes 3 recommendations[9] that are listed in Table 2, and 7 observations that are listed in Table 3. It also proposes one example of potential good practice which is given in Table 4.

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[9] Recommendation 3 is to sentence and act upon the observations and is not explained further.

TABLE 1 – ROLES CONSULTED DURING THIS REVIEW

Table 1: SUMMARY OF INTERVIEWS[10] CONDUCTED IN SUPPORT OF REVIEW ONR-RA-REP-19-004	
1.	31 July 2019 – ███████████████████████████.
2.	1 August 2019 – █████████████████████
3.	12 August 2019 – ONR Principal Inspector
4.	13 August 2019 – HOW2 support
5.	14 August 2019 – CNSS
6.	19 August 2019 – Regulatory & Technical Standards
7.	20 August 2019 – ████████████████
8.	20August 2019 – Civil Nuclear Security & Safeguards

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[10] No detailed question set was used for these interviews which took the form of unstructured discussions, allowing me to optimise each discussion to focus on emergent findings.

TABLE 2 - RECOMMENDATIONS

Table 2 : RECOMMENDATIONS ARISING FROM THIS REVIEW ONR-RA-REP-19-004					
Ref.	Findings & Risk Impact	Risk Cat[11]	Recommendation	Management Response	Target Date
ONR-RA-RCN-01	The ONR SAPs have been revised on 8 occasions but the published document continues to indicate that it is unedited Rev0.	H	Amend the revision status of the ONR SAPs and accompany this with a suitably scaled announcement to staff and stakeholders that includes an outline description of the changes made. This should be undertaken urgently.	Accepted by: ██████	End Dec 2019
ONR-RA-RCN-02	This review has identified that guidance, documents and procedures are not subject to an adequate level of document control	M	Conduct a wider and fully comprehensive review of ONR guidance to ensure that no similar document control anomalies exist. Also, identify and implement procedures to maintain robust document control of all such documents in future. (Part of MSIP work?)	Accepted by: ██████	April 2020
ONR-RA-RCN-03	Observations arising from this review	L	Observations 1-7 arising from this review should be sentenced and acted upon as appropriate.	Accepted by: ██████	April 2020

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[11] *Risk Priority Category (see ONR-RA-GD-007):*

High (H) = Significant weakness in governance, risk management and/or control that if unresolved exposes ONR to an unacceptable level of residual risk. Urgent remedial action must be taken.

Medium (M) = Weakness in governance, risk management and/or control that if unresolved exposes ONR to a high level of residual risk. Remedial action should be taken at the earliest opportunity and within an agreed timescale.

Low (L) = Scope for improvement in governance, risk management and/or control. Remedial action or process improvements should be prioritised and programmed within a reasonable timescale

NB The rating provided uses professional judgement based on findings and evidence

TABLE 3 - OBSERVATIONS

	Table 3: OBSERVATIONS RELATING TO ONR-RA-REP-19-004
1.	ONR Document Control Record forms provide an audit trail to indicate that peer review, external review etc. have been completed for TIGs and TAGs. The existing form does not however provide any means to capture the reasoning behind a decision to mark some fields as N/A, but this occurs routinely. The DCR form should include capture of the reasoning for deviation from the full process. This could be as simple as an additional free-text field on the existing form.
2.	There is no central, single repository for document control and acceptance information for guidance, documentation or procedures published in by ONR, e.g. the process for TIGs and TAGs only requires this information to be submitted to the HOW2 team as part of their acceptance of the new or revised document. A single repository of audit evidence for of guidance, documentation or procedure would be of benefit to any future review in this area.
3.	As publication dates for ONR guidance are not synchronised and cross-referencing is common, Inspectors should be mindful to always confirm that important aspects of guidance that has been amended remain extant in the latest version(s). This approach would align with the position on always obtaining legislation from an approved, up to date source.
4.	The ONR Guide NS-INSP-GD-030 Revision 5 includes a minor inconsistency at part 7(7) where the requirement to agree items for the 28 day report at the start-up meeting is given in explicitly the narrative but not included in the example agenda at the Annex. In discussion with the author, the addition of "items for 28 day report/ 6 month report" to agenda item 12 would provide clarity and this modification should be considered for inclusion in the next revision.
5.	There is no consistent approach to the involvement of PLs from "other" disciplines in the review cycle for guidance, documents and procedures, the present system is ad-hoc at the discretion of the lead author. This contrasts e.g. with the requirement to seek the views of DNSR and EA where appropriate, which is codified via the DCR process.
6.	The current mechanism for providing feedback concerning errors, omissions or general comment on ONR guidance lacks clarity and is somewhat ad-hoc. The MSIP project should consider introducing a simplified mechanism whereby staff can provide feedback relating to any given page or document, logging and tracking that feedback to the appropriate owner for sentencing and action as appropriate. This is a repeat of finding 5a from ONR-RA-REP-18-011.
7.	ONR Communications team are involved in the MSIP project but are perceived to be at a distance. Increased involvement in both publicising and shaping the replacement interface could significantly contribute to increased staff engagement with the new system.

TABLE 4 –GOOD PRACTICES

|	Table 4: RELEVANT GOOD PRACTICE RELATING TO ONR-RA-REP-19-004	
	RGP	WHY CONSIDERED GOOD PRACTICE
1.	The choice of HOF specialism staff with particular experience in the development of management systems to act as lead authors for the MSIP management system manual.	I confirmed in discussions that ONR has shown a tendency previously to allocate lead project roles to staff who are "available", or using a rigid hierarchical approach. To recognise and make specific use of established, proven skills available in house is an example of good practice.

REFERENCES

1) IAEA Integrated Regulatory Review Service (IRRS) Guidelines for the Preparation and Conduct of IRRS Missions, IAEA Vienna SS23, 2013
2) IAEA GSR Pt. 2 Leadership & Management for Safety, IAEA Vienna GSR2, June 2016
3) IAEA GSG12 Organization, Management and Staffing of the Regulatory Body for Safety, IAEA Vienna GSG12, Sept 2018
4) IAEA GSG 13 Functions and Processes of the Regulatory Body for Safety, IAEA Vienna GSG13, Sept 2018
5) ONR Safety Assessment Principles for Nuclear Facilities (SAPs) , 2014 Rev.0
6) ONR Security Assessment Principles for the Civil Nuclear Industry (SyAPs), 2017 Rev.0
7) ISO9001 Guidance on the Requirements for Documented Information of ISO 9001:2015 www.iso.org downloaded 22 Aug 2019
8) Comparison Report for 2104 vs. 2019 versions of "Safety Assessment Principles for Nuclear Facilities - 2014 Edition, Revision 0" (CM9 2019/252652)
9) ONR SAPs publication history from web archive (CM9 2019/252658)

APPENDIX A – ASSURANCE RATING DEFINITION

Core Definitions for Annual and Engagement Opinions	Optional RAG
Substantial In our opinion, the framework of governance, risk management and control is adequate and effective.	Green 🟢
Moderate In our opinion, some improvements are required to enhance the adequacy and effectiveness of the framework of governance, risk management and control.	Yellow 🟡
Limited In our opinion, there are significant weaknesses in the framework of governance, risk management and control such that it could be or could become inadequate and ineffective.	Amber 🟠
Unsatisfactory In our opinion, there are fundamental weaknesses in the framework of governance, risk management and control such that it is inadequate and ineffective or is likely to fail.	Red 🔴

APPENDIX B – FINDINGS OF PREVIOUS RA REVIEWS THAT WERE CONSIDERED DURING THIS REVIEW

RAf report	Related finding
ONR-RA-REP-18-011	2. No overall architecture/structure/strategy for the ONR Management System has been defined.
ONR-RA-REP-18-011	5a. There is no integrated process which allows ONR staff to flag up problems with MS information provided on HOW2, Nucleus or elsewhere, and there is no effective process in place to review such feedback and implement appropriate corrective actions.
ONR-RA-REP-18-011	5c. The lack of feedback from users concerning the contents of 500+ HOW2 process maps (many of which are incorrect) calls into question the degree of engagement of ONR staff with this source of MS information, yet considerable ONR resources are being expended to develop and maintain this information. ONR requires a strategy to ensure that MS resources in this area are being used effectively.

APPENDIX C – ITEMS OF SPECIFIC ONR GUIDANCE CONSIDERED IN THIS REVIEW PER ONR CORE PURPOSE

#	Lead Purpose	Document
1	Transport	NS-TAST-GD-099 Revision 0 Transport Engineering Assessment
2	Safety (cross ONR)	ONR-INSP-GD-059 Revision 6 Intervention Planning
3	Safety / Security	ONR-ENF-GD-006 Revision 2 Enforcement Guide
5	Security	SyAPs supporting TAGs (5 sampled)
6	Health & Safety	TIG 51 – Health and Safety on Nuclear Sites
7	Safety / LCs	LC 30 TIG - NS-INSP-GD-030 Revision 5
8	Transport	NS-INSP-GD-069 – Transport Arrangements Compliance Inspection
9	Safety	ONR SAPs 2014 Rev0[12]
10	Safeguards	none[13]

[12] Multiple versions of Rev 0 of the SAPs identified
[13] Working level guidance, documentation and processes for Safeguards are currently held over in draft status are they evolve

APPENDIX D – DOCUMENT CONTROL RECORDS EXAMINED FOR THIS REVIEW

Document title	DCR Reference
Transport Engineering Assessment	NS-TAST-GD-09 Rev. 0
Intervention Planning	ONR-INSP-GD-059 Rev. 6
Enforcement Guide	ONR-ENF-GD-006 Rev. 2
Radiological analysis – Normal operation	NS-TAST-GD-043
Nuclear Construction sites TAG	SyDP 6.6
Adjacent or enclave nuclear premises TAG	SyDP 6.5
Vulnerability Assessment TAG	SyDP 6.4
Physical Protection system design TAG	SyDP 6.3
Categorisation for Sabotage TAG	SyDP 6.2
LC13 – NSC TIG	NS-INSP-GD-013
LC30 - Periodic Shutdown TIG	NS-INSP-GD-030
Transport arrangements compliance inspection	NS-INSP-GD-069
Emergency Power Generation	NS-TAST-GD-103
ONR SAPs 2014 Rev 0	None identified