



Development of a Prospective Site Licence Company to implement Geological Disposal

Report of a joint regulatory review by the Environment Agency, Health and Safety Executive, and the Department for Transport

December 2009

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Development of a Prospective Site Licence Company to implement Geological Disposal

Introduction

1 The Environment Agency, Health and Safety Executive and Department for Transport (collectively termed 'the regulators') are the principal regulators for the development of a geological disposal facility (GDF). The Nuclear Decommissioning Authority (NDA) is the organisation tasked by Government with responsibility for planning and implementing geological disposal. The NDA has established a Radioactive Waste Management Directorate (RWMD), which it will develop into an effective delivery organisation to implement geological disposal.

2 We (the regulators) carried out this review to guide the NDA's development of the Radioactive Waste Management Directorate (RWMD) into a Site Licence Company (SLC) to implement geological disposal.

3 Establishing a Site Licence Company (SLC) to implement a GDF will take some years. Plans involve the separation of RWMD from NDA to form a separate subsidiary organisation, and then establishing an organisation capable of holding the environmental permits likely to be needed to enable intrusive site investigations at a candidate site (or sites). At a later date, before the start of underground operations, the organisation will need to be capable of holding a nuclear site licence. During this time RWMD will need to ensure it continues to support the Letter of Compliance (LoC) process as a means of providing advice on the compatibility of proposals for packaging wastes with the requirements of geological disposal.

4 We agreed that RWMD should aim to develop into a shadow Site Licence Company by December 2009 as a first step towards RWMD achieving the appropriate organisational status. This intermediate status would assist transparent oversight by regulators and would be termed 'Prospective SLC'.

- 5 Together with NDA and RWMD we agreed that the 'Prospective SLC':
- will provide separation between the strategic responsibilities of corporate NDA and RWMD's development work (including, for example, planning for implementation, investigating and assessing specific candidate sites and specifying packaging standards and the associated LoC process);
 - will embody the culture and demonstrate the competences, of a company that is to hold an environmental permit and a nuclear site licence including having an independent assurance function; and,

- will be a stable organisation that meets the immediate needs of the business, its regulators and others.

6 Together we agreed that the transition to Prospective SLC will be marked by:

- arrangements being in place for RWMD to voluntarily submit to regulatory scrutiny and advice (as an operating division of NDA); and,
- regulatory agreement that RWMD has made progress toward meeting agreed principles concerning its governance, structure and operation as a Prospective SLC as measured by specific progress criteria.

7 The Principles were:

1. Appropriate governance arrangements for RWMD
2. Autonomy: independence of action within RWMD
3. Integrity: appropriate separation of RWMD's operational role from NDA's strategic role
4. Clear RWMD identity
5. Management of safety and environment
6. Openness
7. Effective engagement with stakeholders
8. Protection of the LoC process

8 Notwithstanding our agreement to consider these Principles and the specific progress criteria, as independent regulators we were also mindful of our responsibility to consider and identify any other issues that may put at risk the successful development of RWMD into an implementing organisation for a GDF.

Undertaking the Regulatory Review

9 A regulatory team was established to support the review of RWMD. The team comprised staff from each of the participating regulatory organisations (EA, HSE NII and DfT) with experience in the development and regulation of organisations and their management arrangements at nuclear licensed sites. We discussed the potential of the Scottish Environment Protection Agency (SEPA) participation in the review. Given that policy in Scotland does not support geological disposal we agreed with SEPA that they remain a key stakeholder and consultee in the review rather than a direct participant. A Project Brief for the review with key dates was agreed, and a copy provided to RWMD.

10 The regulatory review was designed around the eight principles agreed for transition to a 'Prospective SLC' (as above) in addition to the wider consideration of our own independent regulatory expectations and guidance on operator management arrangements.

11 Key regulatory reference documents for this included:

- Guidance on Integrated Management Prospectus, Environment Agency / HSE.
- Function and Content of a Safety Management Prospectus. T/AST/072, HSE.

- Guidance on Management Arrangements for Radioactive Substances. Environment Agency.
- Function and Content of a Nuclear Baseline. T/AST/065, HSE.
- Geological Disposal Facilities on Land for Solid Radioactive Wastes: Guidance on Requirements for Authorisation, February 2009. Environment Agency / Northern Ireland Environment Agency.

12 The review comprised the following activities:

- Review of 'Submission Document' provided by RWMD
- Discussions with RWMD staff

Review of Submission Document

13 Before the review we discussed and agreed with RWMD the form and content of a 'submission document'. RWMD provided this on 30 September 2009. It included various documents offered by RWMD as evidence towards meeting Prospective SLC status. Key documents included the Safety and Environment Management Prospectus (SEMP), Management Systems Manual and Organisational Baseline. By 19 October 2009, RWMD also provided a copy of the Organisational Baseline Compliance Assessment and a report of an Internal Review of RWMD readiness for Prospective SLC status. Our consideration of these documents formed the first phase of our review.

Discussions with RWMD staff

14 The second phase of our review involved discussions with staff from across RWMD, and also with members of RWMD's Repository Development Management Board (RDMB). The aim of this was to understand the extent to which the documented arrangements that had been provided reflected the ways of working within the organisation. In particular these discussions allowed us to consider whether RWMD does 'embody the culture and demonstrate the competences, of a company that is to hold an environmental permit and a nuclear site licence including having an independent assurance function'.

15 Individuals were identified according to the roles they held within RWMD and their involvement in key activities that have a bearing on the nuclear safety and environment performance of the organisation, as well as to provide a good cross section across all staff.

16 The SEMP identified ten key activities that have 'relevance' to nuclear safety and environment. We chose three of these to sample, two of which we knew were activities RWMD has undertaken for some while, and one which is more recent, and potentially less mature:

- Development and maintenance of the Disposal System Safety Case (DSSC)
- Research and Development activities
- Site Characterisation / Preparation (potentially a less mature activity)

We identified a number of key posts relevant to the delivery of these processes at all levels within the organisation.

17 We chose not to review the LoC process as such, although we did seek information on its continuing independence. Whilst we recognise this is a key activity it is one that has received considerable regulatory scrutiny in the past. Instead we wanted to understand the extent to which the organisational management arrangements extended to address the other key activities carried out by RWMD.

18 We also wanted to understand how the organisation established cross-cutting arrangements to support the key activities – described as ‘supporting activities’ within the SEMP. In particular this included the assurance arrangements established to ensure the organisation maintained an understanding of the extent to which issues of nuclear safety and environment performance were being managed.

19 We spoke to forty individuals during the course of our structured discussions, equating to around half of the total staff. A list of the posts involved in structured discussions is in Annex 1.

20 Our discussions with staff were structured to a degree in order to ensure that we were comprehensive in considering the organisational arrangements in place, and broadly consistent between the discussions. We were also flexible to allow specific issues relevant to an individual member of staff to be explored.

21 The discussion topics explored were each key components of an effective organisation, and are particularly important for an organisation such as RWMD in developing and implementing a robust programme of work that will need to give different emphasis to a range of different types of activities at various stages in time. These were: Leadership and Governance, Organisational Capability, Control and Assurance, and Organisational Learning.

Key Findings

22 Without exception all those asked to participate in this review were happy to give their views and strongly supported the overall mission of RWMD. Staff clearly enjoy working with RWMD and identify themselves primarily with RWMD rather than NDA. They expressed enthusiasm for RWMD to move to the next stage of the programme and development of the organisation, but recognised the need to proceed carefully and avoid undermining the Government’s Managing Radioactive Waste Safely (MRWS) process. Staff within RWMD were clearly keen to learn and understand the opportunities to develop the organisation further.

23 RWMD has made considerable progress in developing its arrangements, notably establishing the Repository Development Management Board (RDMB), a Nuclear Safety and Environment Committee (NSEC), developing a Safety and Environmental Management Prospectus, together with Organisational Baseline Assessment. Moreover, RWMD has established a working-level relationship

with the regulators and demonstrated considerable openness in allowing the regulators access to its staff and arrangements in order to conduct this review.

24 The following presents our findings against each of the topics we investigated.

Leadership and Governance

Effective leadership and governance

25 The development of a Board for RWMD (the Repository Development Management Board) is significant and has helped established a clear sense of mission within the organisation. However, the Board is still at an early stage of its development and it will take time before it begins to work effectively in properly understanding and challenging the safety and environmental performance of the organisation.

26 The Board of RWMD, together with the new Managing Director when appointed, needs to lead the organisation, setting out clear expectations of organisational performance including nuclear safety and environment performance. The development of a mission and objectives for RWMD and its own review of the corporate values provide a useful, clear description of the intent and purpose of the organisation. But it is not clear that the Board is actively seeking a deeper understanding of how well these objectives and values have been embedded. For example, we are concerned that while the monthly information 'dashboard' reviewed by the Board considers simple metrics such as organisational headcount and injuries to staff, there were no specific indicators of nuclear safety and environment performance. There were suggestions from talking to staff that information passed up to the Board by senior managers is somewhat bland and not fully representative of the technical issues and concerns raised.

27 We note that a number of meetings of the Board have had to be cancelled because of diary clashes. This is disappointing, particularly at a time when RWMD is undergoing significant organisational development and requires high-level leadership. The presence of an independent member on the Board is very welcome, and plans to extend the independent membership are encouraged. RWMD may want to consider including a person with particular experience of leading programmes of development and working within a nuclear site licensed organisation.

We recommend that the RWMD Board becomes more challenging in its behaviours and consider how best to develop a deeper familiarity with the delivery of the organisation's overall mission and objectives including, specifically, nuclear safety and environment.

28 The NDA does not seem to be having any 'undue' influence on RWMD at a working level. But, it does appear to be impacting on the ability of RWMD to recruit to key posts. The constraints it has

imposed on recruitment, and the processes of recruitment that require internal advertising, mean that any attempt by RWMD to recruit takes significant time. Retention of key staff has been hampered by constraints on the ability of RWMD to offer competitive salaries. Some staff told us of a lack of urgency with progressing work in some areas, and described the organisation as 'treading water' or 'having the brakes on'. NDA should work with RWMD to appropriately streamline the recruitment process, and to ensure it has the resources it needs to develop its capabilities in line with the MRWS process, supported by Government through the Geological Disposal Implementation Board.

We recommend the RWMD Board reviews and resolves the issue of staff retention and recruitment with the NDA as a matter of some urgency.

Understanding the importance of nuclear safety and environment

29 It is clear that most staff in the organisation have yet to understand fully the importance of its work in terms of nuclear safety and environment, and to realise that what is being done now is vital for this. Staff both at the Board and other levels across the organisation expressed the view that the LoC process was the only current area in which nuclear safety and environment implications were relevant, in contradiction of the organisation's SEMP. It is certainly the case that the LoC process is central to supporting nuclear safety and environment performance at sites across the UK, however all the key activities undertaken by the organisation underpin the development and implementation of robust arrangements for the management of nuclear safety and environmental issues associated with geological disposal. It is important to develop the correct culture and clear common understanding of the importance of nuclear safety and environment within the organisation now, rather than planning to impose these suddenly by management at a future date.

30 Establishing the Nuclear Safety and Environment Committee (NSEC) is a significant development for RWMD and will have a key role in supporting the governance arrangements in place. Its role needs to be more fully understood across the organisation as only a few individuals referred to the NSEC as a key committee providing advice. The Board must take ownership of nuclear safety and environment issues, in particular the development of a safety case for geological disposal.

We recommend that RWMD develops among its staff a clear understanding of, and ownership for, the potential nuclear safety and environment impact of its work. We believe that this is essential if it is to meet the agreed principles and the necessary culture to be a credible 'Prospective SLC'.

We recommend the RWMD Board and Executive develop leading indicators to allow it to review and understand nuclear safety and environment performance of the organisation, and arrangements that enable the organisation to respond in good time to any issues that may arise.

Ensuring clarity and effectiveness of governance

31 RWMD has established governance arrangements that make use of a number of key committees within the organisation and which recognise the important relationships with external governing bodies, including the NDA itself and the Government's Geological Disposal Implementation Board. RWMD also makes use of extensive networks of advisory groups, both within and external to the organisation. It is not clear to all staff what role the latter groups have within the governance of the organisation, nor is this documented clearly within the management arrangements. For example, the site characterisation work is supported by a group that provides a useful steer to some of the programme work as well as providing review and scrutiny. There is a potential conflict here between the two roles, and it is not clear, either to us or its own staff, what remit RWMD has given such a group to 'steer' this work.

We recommend RWMD reviews the remit and role of the various groups and committees with roles in governance and reflect these, where appropriate, within clarified arrangements.

Organisational Capability

Organisational design and core organisational competence

32 NDA established RWMD in 2007 in order that it should be developed into an effective delivery organisation to implement geological disposal. The structure of the organisation remains largely inherited from the predecessor organisation, Nirex. It is not clear that there has been any independent review and development of the principles upon which an organisation capable of delivering RWMD's current mission is based. For example, within the Organisational Baseline Document (OBD) it is stated that the *'starting point for assessment and future development of the RWMD organisational baseline is the current organisation, which when fully resourced is sufficient to meet RWMD's current business needs'* (para 22). The OBD then provides a high-level description of the organisational capabilities needed to undertake the activities it is currently organised to deliver rather than considering the activities to be carried out in order to deliver its mission of implementing geological disposal.

We recommend that RWMD undertakes a review of the basis for organisational design that links clearly to the activities needed to develop and implement a programme of geological disposal.

33 A key part of developing its organisation is for RWMD to establish clearly the core competences it needs to take forward its programme and manage its potential nuclear safety and

environment impacts. This includes enduring understanding and ownership of the safety case and design for a GDF, and the ability to command and control the nuclear safety and environment impacts of work carried out on its behalf known as 'intelligent customer' capability. For example, the current arrangements for assurance make use of contractors to support the review of documentation. The framework arrangements for this are now quite old, and it was noted to us that it is not clear that the relevant skills, capabilities and resources needed to support the full range of activities requiring review are still available. This reflected concerns that key staff might have left the contractor organisations and that the existing contracts may no longer match the needs of the current programme.

We recommend that RWMD reviews its understanding of its core organisational competence requirements against the basis for organisational design, and consider what arrangements are needed to deliver and monitor this.

34 We are concerned that a number of key Safety Case positions are staffed on an 'interim' basis by contractors following loss of staff, for periods of up to 18 months. For example, there was no clear demonstration of the 'intelligent customer' role being fulfilled with respect to the operational and transport safety case area. This may improve once the new manager starts work, but it is an area of weakness that RWMD should address. There appears to be a lack of urgency to resolve this situation and any 'interim' arrangements to ensure that the knowledge and lessons learnt from contractors in these key roles during these periods are being captured and understood by RWMD.

We recommend that RWMD puts in place arrangements to recruit as soon as possible to the key safety and environment positions currently filled by 'interim' contractors.

Whilst acknowledging RWMD's aim to remain 'lean', we recommend RWMD establishes a robust strategic human resource plan that includes effective arrangements to:

- identify current and future competence and workforce needs**
- identify vulnerabilities such as demographic issues and 'singleton' staff with unique knowledge or skill, and,**
- develop appropriate succession, recruitment and contingency plans.**

Competence Assurance

35 RWMD has recently started to develop a competence management system. Progress to date includes identification of roles and responsibilities across the organisation. Structured means for training needs analysis or assessment of competence have yet to be developed.

We support the development of a competence management system in RWMD and recommend

that its development continues to meet internationally recognised standards of a 'systematic approach to training' as set out in IAEA guidance and reflected in HSE NII T/AST/027.

Contracting arrangements

36 RWMD's staffing strategy set out in its Business Plan is for *'a lean organisation of highly skilled and suitably qualified and experienced individuals, supplemented by expert contract support from the supply chain, where appropriate'*. Good progress has been made to develop a commercial strategy. The approach of consulting with the supply chain to ensure procurement arrangements are effective and key skills will be available should allow RWMD to shape the organisation appropriately in the future and should be continued. Establishing a positive, healthy supply chain will be vital to the RWMD's ability to deliver a successful programme provided it can remain a fully effective intelligent customer.

Control and Assurance

Development of Assurance

37 RWMD plans to develop its assurance activities through revised procedures that will extend the scrutiny given to processes and 'products' from across the organisation that have a bearing on safety and environment. This is welcome however we believe RWMD should review its assurance activities more widely – to include a review of the skills and resource within the Health, Safety, Security and Environment (HSSE) function, the due-process arrangements for review and approval of documentation and the role of HSSE and use of external contractors for review, as well as the arrangements for monitoring the effectiveness of implementation of such arrangements. In particular we suggest that RWMD develops strong links with other nuclear licensed operators (e.g. through the Safety Directors Forum) to benefit from their experiences.

We recommend RWMD reviews its arrangements for assurance to ensure that they are robust to consider nuclear as well as conventional issues of safety and environment performance.

Nuclear Safety and Environment Management Arrangements

38 Safety and environment management arrangements within RWMD other than for the LoC process, focus on the conventional aspects of safety and environment. The organisation needs to develop its management arrangements into a nuclear safety and environment management system, that recognises and controls the impacts of its work on nuclear safety and environment performance (albeit the effect itself may only be realised some years in the future). Arrangements should ensure that individuals within the organisation are aware of the impact that their current activities can have on nuclear safety and environmental performance of a geological disposal facility. Provision should be

made for suitable review and scrutiny of arrangements to assure RWMD that nuclear safety and environment performance is being appropriately managed and optimised where possible.

We recommend RWMD reviews and develops its safety and environment management system to ensure the proper control and assurance of nuclear safety and environment issues.

Organisational Learning

39 The culture and ways-of-working within RWMD support a strong team ethos within individual work groups which encourages regular informal interactions and discussions to share information. This is being further assisted by setting up a project based approach to work across the organisation. The current small size of RWMD and the fact that most staff are co-located make it relatively easy to interact. There is an extensive and apparently powerful electronic document management system which supports RWMD being able to maintain a vast amount of information. However, it is not clear RWMD manages issues of organisational learning – gathered either from individual projects, or captured from the extensive interactions that take place with contractors, operators and academics elsewhere in the UK and beyond.

40 Although RWMD has a considerable database of knowledge and research, it does not appear to have a clear picture of: (a) 'what we know enough about' (b) 'what else we really need to know' for development of a GDF and safety case, and hence (c) what the business priorities for research are. Work in hand led by the Head of Research may remedy this and should be encouraged.

We recommend that RWMD establishes formal arrangements for capturing and sharing lessons learnt and for developing a clear knowledge developed from individual projects and networking activities.

41 A key activity in managing issues of nuclear safety and environment is that of gathering and considering 'Operational Experience Feedback' (OEF) and considering the likely implications of this for maintaining and improving safety and environment performance. In RWMD this might include identifying events or experiences in any nuclear safety and environment related activities where there was a potential for unsafe outcomes, and making changes to prevent a recurrence. For example, we were told of an instance where a licensee's LoC submission included errors that fortunately were identified when an RWMD scientist with relevant expertise was consulted. RWMD staff clearly managed that situation well, but were the wider lessons learnt captured by the business? OEF should include learning from successes as well as potential risks, and should look at the whole organisation from the Board down. It should include looking to learn lessons from events in other industries, such as the accident at Buncefield or the Nimrod enquiry, and from nuclear industry groups.




We recommend that RWMD establishes arrangements for considering ‘operational experience feedback’.

Summary of Findings against the agreed Principles and Criteria

42 The regulators agreed a set of Principles for the development of the Prospective SLC, and specific Criteria against each Principle as a measure of progress. In forming a view on RWMD’s development against the Principles we considered not only the delivery against specific progress Criteria, but also our own independent expectations based on our consideration of the topics set out in Section 3.


43 This section summarises our findings in terms of both the delivery against the specific Criteria and our views on RWMD’s overall level of development towards the Principles.

44 We have used a ‘traffic light’ style of report in setting out our findings – both in terms of the degree to which individual criteria have been met, and in terms of how we believe the overall Principle has been met. The basis of the green, amber and red status indicators is as follows:








Description	
Positive findings – either a criterion has been met, or we believe the overall RWMD arrangements to be effective in delivering the Principle.	
Some significant deficiencies or shortfalls.	
A gap in arrangements – either a criterion has not been met at all, or we believe the overall RWMD arrangements to be inadequate to deliver the Principle.	

Appropriate Governance Arrangements

Overall level of development


45 We believe that the ability of RWMD to establish and demonstrate appropriate  governance arrangements is vital to the future success of the organisation. Considerable effort has been put into establishing the management arrangements to support this, but the Board needs to work effectively to demonstrate a clear high-level commitment to nuclear safety and the environment. To ensure the appropriate culture is developed, the Board should take this forward by establishing proper challenge to the organisational performance with respect to nuclear safety and the environment.

Delivery against Progress Criteria


Criterion	Summary
1 Internal governance arrangements including appropriate working level arrangements	 Governance arrangements have been established but are not yet effective nor fully understood across the organisation
2 Accountability to the NDA and Government	 Clearly accountable to NDA via the Board and to Government through NDA, and Geological Disposal Implementation Board (GDIB)
3 Clear Delegation of Authorities (including financial)	 NDA Scheme (& sub-scheme) of delegation exists
4 Clear lines of responsibility for safety and environment	 Lines of responsibility for conventional safety and environment management exist. There is a lack of understanding of organisational and identified individual responsibilities for nuclear safety and environment
5 Clear lines of responsibility for Stakeholder engagement and communication	 Key individuals within the organisation have been assigned responsibility for managing and co-ordinating stakeholder engagement and communication
6 Monitoring of performance against business plan	 There are arrangements in place for monitoring of performance against the business plan – however these do not provide information relating to the nuclear safety and environment performance of the organisation
7 Independent internal regulation	 Procedures exist for scrutiny of the LoC process and are being developed to consider other aspects of the organisations activities. There is currently no formal framework for assurance to consider the nuclear safety and environment performance implications of all current work.

Autonomy: Independence of action within RWMD Remit

Overall level of development

46 RWMD does appear to operate in an autonomous manner. Its ability to protect this will improve as the Board is strengthened with further independent members and matures in its ways of working. 

Delivery against Progress Criteria

Criterion	Summary
1 RWMD has its own Board including increased number of independent members with broadened representation	 Whilst the Board exists, independent membership has not increased and nor are the working arrangements establishing any clear leadership and governance

2	Clear Terms of Reference for the Board	■	Terms of Reference for the Board exist
3	Description of funding arrangements for RWMD	■	There is a description of funding arrangements for RWMD as part of the budget process

Integrity: Appropriate separation of RWMD’s operational role from NDA’s strategic role

Overall level of development

47 Staff within RWMD have become significantly more focused on the delivery of the programme. The work does not appear to be distracted by the wider strategic responsibilities of NDA but can appear at times to focus on satisfying academic ambitions rather than the specific needs of the safety case etc. Development of a requirements database and a more project-focused way of working will help to maintain this focus. ■

Delivery against Progress Criteria


Criterion	Summary
1 Separate mission and objectives	■ A clear mission statement and objectives exist.
2 Separate business plan for RWMD	■ A business plan for 2009/10 exists.
3 Arrangements for control of RWMD work programme through RDMB	■ A Board exists and a Programme Board is established. Arrangements however do not yet work effectively with respect to nuclear safety and environment. NDA restraints on recruitment and retention policy appear to hamper the ability to provide adequate staffing to deliver the programme.
4 NSEC ToR showing continued scrutiny function over LoC process	■ ToR exist and reflect the scrutiny function for LoC.
5 Formal organisational structure change control process	■ A formal process exists (since January 2009) but is not yet properly implemented. For example the submission document (September 09) provided an out of date organogram (dated April 2009).

Clear RWMD Identity

Overall level of development


48 Staff clearly identify with RWMD and the mission rather than NDA, and are committed and eager to demonstrate progress. There is no sense of unease in terms of the potential move into a subsidiary organisation. This and the strong team spirit are key strengths for RWMD that bode well for further organisational development. ■

Delivery against Progress Criteria

Criterion	Summary
1 Staff have been advised of their status within or outwith the prospective SLC	 Staff understand their status.



Management of Safety and Environment

Overall level of development


49 We found that staff at Board and other levels in the organisation do not fully recognise  the work being done now for nuclear safety and environment, and that RWMD currently lacks assurance arrangements that provide proper understanding and control of this. As mentioned previously, safety and environment management arrangements within RWMD other than for the LoC process, focus on the conventional aspects of safety and environment.

50 The organisation needs to develop its management arrangements into a nuclear safety and environment management system, that recognises and controls the impacts of its work on nuclear safety and environment performance (albeit the effect itself may only be realised some years in the future). A culture that recognises the key importance of nuclear safety and environment needs to be developed across the organisation. Provision should be made for suitable review and scrutiny of arrangements to assure RWMD that nuclear safety and environment performance is being appropriately managed and optimised where possible.

Delivery against Progress Criteria


Criterion	Summary
1 Fit for purpose SEMP	 RWMD has published a Safety and Environment Management Prospectus (SEMP). This contains useful information such as clear identification of the main current safety and environmentally relevant activities of RWMD. However, the SEMP needs further development. At present there is relatively little direct information on how nuclear safety and environment specifically is controlled and assured. The SEMP explicitly confines itself to addressing current needs rather than setting out how RWMD will plan for and adapt to future needs.
2 Appropriate plans to fill gaps in RWMD internal competences and intelligent customer status	 There is no clear assessment of the design basis of the organisation to support the baseline and assessment of core competences. A number of key positions are vacant and have been for some time (e.g. 18 months for a key safety case management position). There appears to be a lack of urgency to fill these and to address subsequent workforce issues to avoid recruitment problems in future. The competence assurance system has yet to be

completed.




- | | | | |
|---|--|---|--|
| 3 | Change control process to include an assessment of the impact of organisational change on safety and environmental matters |  | Change control policy and procedure exists |
|---|--|---|--|

Openness

Overall level of development


51 Staff across RWMD and NDA were very open with us throughout the course of this review and the development of the website has improved the transparency of RWMD activities. 

Delivery against Progress Criteria




Criterion	Summary
1 Publicly available RDMB minutes	 Available on website
2 Governance arrangements available on NDA website	 Available on website
3 Appropriate information provided to community siting partnerships and local stakeholders	 We felt unable to judge whether or not 'appropriate' information is provided – this is a matter for partnerships and stakeholders to consider. RWMD may wish to consider separate engagement with these to obtain an opinion on this.

Effective engagement with stakeholders

Overall level of development

52 In general we are not able to say whether or not the engagement with stakeholders is effective – this remains to be seen and many other stakeholders will have their own views on this. Certainly we ('the regulators') welcome the engagement that we have had with RWMD and believe that the development of 'working-level' engagement has led to more effective discussions between ourselves – including this review. 

Delivery against Progress Criteria

Criterion	Summary
1 Partnership manager co-ordinator and RWMD communications manager recruited and inducted	 Posts filled.
2 Public and Stakeholder Engagement Strategy agreed and implemented through RWMD procedures	 On website
3 Training programme developed	 In development

for RWMD staff on public and stakeholder engagement and communications

Protection of the LoC process

Overall level of development

53 RWMD has established rigorous arrangements to deliver and protect the LoC process. We recognise that these are mature processes which have benefited from previous regulatory scrutiny exercises.

Delivery against Progress Criteria

Criterion	Summary
1 Quality management arrangements in place covering LoC work	Considerable effort is given to ensuring that the LoC delivers quality assessments.
2 Arrangements in place for NSEC to provide advice and scrutiny	Arrangements have been established and will be strengthened by broadening the independent membership of the NSEC
3 Provision of information to regulators	Copies of minutes and NSEC assessments
4 Arrangements in place for regulatory scrutiny	Agreements in place.

Conclusions and Recommendations

54 We believe that RWMD has made significant progress in working towards the status of 'Prospective SLC'. While this is a positive step, we believe that further development is needed to demonstrate that the principles (including the criteria) have been fully achieved. This will require RWMD to start operating as a Prospective SLC under voluntary regulatory scrutiny to address the issues raised in our review. We are confident that this is achievable and are committed to working with RWMD to support this, and further organisational development to ensure the success of the GDF programme.

Our recommendations are:

#	Recommendation
1	We recommend that the RWMD Board becomes more challenging in its behaviours and

#	Recommendation
	consider how best to develop a deeper familiarity with the delivery of the organisation's overall mission and objectives including, specifically, nuclear safety and environment.
2	RWMD Board reviews and resolves the issue of staff retention and recruitment with the NDA as a matter of some urgency.
3	We recommend that RWMD develops among its staff a clear understanding of, and ownership for, the potential nuclear safety and environment impact of its work. We believe that this is essential if it is to meet the agreed principles and the necessary culture to be a credible 'Prospective Licensee'.
4	RWMD Board and Executive develop leading indicators to allow it to review and understand nuclear safety and environment performance of the organisation, and arrangements that enable the organisation to respond in good time to any issues that may arise.
5	We recommend RWMD reviews the remit and role of the various groups and committees with roles in governance and reflect these, where appropriate, within revised, clarified arrangements.
6	RWMD undertakes a review of the basis for organisational design that links clearly to the activities needed to develop and implement a programme of geological disposal.
7	RWMD reviews its understanding of its core organisational competence requirements against the basis for organisational design, and consider what arrangements are needed to deliver and monitor this.
8	RWMD puts in place arrangements to recruit as soon as possible to the key safety and environment positions currently filled by 'interim' contractors.
9	Whilst acknowledging RWMD's aim to remain 'lean', we recommend RWMD establishes a robust strategic human resource plan that includes effective arrangements to: <ul style="list-style-type: none"> <input type="checkbox"/> identify current and future competence and workforce needs <input type="checkbox"/> identify vulnerabilities such as demographic issues and 'singleton' staff with unique knowledge or skills <input type="checkbox"/> develop appropriate succession, recruitment and contingency plans
10	We support the development of a competence management system in RWMD and recommend that its development continues to meet internationally recognised standards of a 'systematic approach to training' as set out in IAEA guidance and the HSE NII T/AST/027.
11	RWMD reviews its arrangements for assurance to ensure that they are robust to consider nuclear as well as conventional issues of safety and environment performance.
12	We recommend RWMD reviews and develops its safety and environment management system to ensure the proper control and assurance of nuclear safety and environment issues.
13	We recommend that RWMD establishes formal arrangements for capturing and sharing lessons learnt and for developing a clear knowledge developed from individual projects and networking activities.
14	RWMD establishes arrangements for considering 'operational experience feedback'.

ANNEX 1: Summary of posts involved in structured discussions

	Post
1	Chairman of the Board
2	Managing Director (Acting) & Repository Technical Director
3	Independent Board member
4	Repository Project Director
5	HSSE Director & Deputy Director
6	Business Services Director
7	RDMB Member
8	Staff representative
9	RDMB Member
10	Head of Research
11	Head of Assessments
12	Research Manager
13	Operational Safety Manager (Interim)
14	Criticality Research Manager
15	Operational Safety Case Engineer
16	Waste Package Research Manager
17	Head of Engineering
18	Geosphere Characterisation Manager
19	Engineering Systems Manager
20	Geosphere Characterisation Engineer
21	Packaging & Transport Development Manager
22	Planning Manager
23	RWMD Development Project Manager
24	Disposal System Safety Case Manager
25	Partnership Co-ordinator
26	Head of Disposal Systems Specification
27	Sustainability Assessment Manager
28	ex-Head of Repository Safety & Environment
29	HR Manager
30	Safety & Environmental Systems Manager
31	Quality Systems Manager
32	Regulatory Implementation Manager
33	Regulatory Implementation Specialist

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Published by the Environment Agency, the Health and Safety Executive,
and the Department for Transport

Environment Agency reference: NWAT/NDA/RWMD/2009/2