

NuLeAF: NUCLEAR LEGACY ADVISORY FORUM

LGA SPECIAL INTEREST GROUP ON RADIOACTIVE WASTE MANAGEMENT AND NUCLEAR DECOMMISSIONING

**Minutes of the Steering Group held on 6th December 2017,
Coram Campus, Brunswick Square, London**

Present:

Cllr Brendan Sweeny	Barrow-in-Furness Borough Council (Chair)
Cllr Grace Fletcher-Hackwood	Manchester City Council (Vice-Chair)
Cllr David Southward	Cumbria County Council
Cllr Peter Downing	Sedgemoor District Council
Cllr David Chubb	South Gloucestershire Council
Cllr Richard Smith	Suffolk County Council
Cllr Chris Morgan	West Somerset Council
Steve Smith	Copeland Borough Council
Gillian Elliott	Cumbria County Council
Nia Carys Swann Boden	Gwynedd County Council
Sean Morris	Manchester City Council
Doug Bamsey	Sedgemoor District Council
Dave Illsley	Shepway District Council
Gareth Lloyd	Snowdonia National Park Authority
Gillian Ellis-King	South Gloucestershire Council
Jon Beckett	Stroud District Council
Clive Pink	Suffolk Coastal District Council
John Pitchford	Suffolk County Council
Dylan Williams	Ynys Mon County Council
Philip Matthews	NuLeAF
Catherine Draper	NuLeAF

1	WELCOME AND APOLOGIES	ACTION
1.1	The Chairman welcomed everyone to the meeting and noted that Jon Beckett from Stroud District Council was attending for the first time.	
1.2	Apologies were received from: Lesley Stenhouse and Terry Burns – Essex County Council, Linda Townsend – Gloucestershire County Council, Cllr Sean Chaytor – Hull City Council, Bryan Geake – Kent County Council Cllr Michael Green – Lancashire County Council, Cllr David Blackburn – Leeds City Council, Lucy Atkinson – Merseyside Environmental Advisory Service, Peter Day – Oxfordshire County Council, Richard Conway – Purbeck District Council, Cllr Matthew Riddle – South Gloucestershire Council, Cllr Geoff Holdcroft & Lisa Chandler – Suffolk Coastal District Council	
2	MINUTES OF THE MEETING HELD ON 18 SEPTEMBER 2017	
2.1	The Minutes of the last meeting were held as a true and accurate record and would be posted on the NuLeAF website.	CD

3	MATTERS ARISING	
3.1	All actions were completed or addressed within the meeting papers.	
4	PROPOSALS FOR ACCELERATED DECOMMISSIONING OF MAGNOX REACTORS, SIMON BONIFACE, NDA	
4.1	The Chair welcomed Simon Boniface to the meeting.	
4.2	SB introduced his presentation on NDA's work to consider whether a case can be made to change Magnox decommissioning strategy - from one of deferral to that of continuous – to UK Government. Current UK strategy is for sites to go through a high hazard reduction phase (removal of fuel) and for the site to be prepared for a period where it can be safely left for the radioactivity in the reactor to decay to a level where it will be 'safer' to decommission. It is assumed that the GDF will be available from the 2040s which would mean there would be a waste route for the High Activity Waste generated during final site clearance available. It was also assumed that this approach does not require interim storage. The strategy of deferral also benefits from the discounting of costs.	
4.3	However, there have been changes since this strategy was adopted. In many respects the dominant hazard during reactor decommissioning (particularly the latter stages) is actually asbestos and other conventional hazards and not radiation. There have also been significant advances in remote technologies and so there is reduced benefit in waiting for radioactivity to decay. The UK has not fully dismantled a Magnox reactor and so there is huge learning to be had. If we delay (i.e. keep the current strategy) we potentially lose out on our Supply Chain being able to compete on the worldwide market for remote decommissioning and would not be able to capitalise on being first.	
4.4	Historically, the nuclear industry has been conservative in its estimates of the volume and radioactivity levels of the waste it has. Recent data indicates that dose levels in some parts of a Magnox reactor are up to 2 orders of magnitude lower than those predicted. New waste routes are being developed for LLW, and waste disposal itself is better managed than at the time the current strategy was adopted. This allows for the better use of existing storage facilities and their increased longevity.	
4.4	If there was a change in strategy to permit continuous decommissioning, work currently programmed to prepare sites for a period of quiescence could be avoided and the costs saved.	
4.5	NDA Strategy 3 stated that NDA was going to review the extant strategy, and to that end NDA asked Magnox to review, consider credible options and then a preferred option. Magnox completed this work in December 2016 and NDA is taking the output and developing into a UK perspective. NDA is now producing the case for change to take to government to support change in strategy.	

Two papers will be submitted: the timing paper will be submitted in June 2018, with the sequence paper following approximately two months later.

4.6

There were 10 main factors which SB felt could influence the case for a change of strategy in terms of the Timing of dismantling:

1. Lead and learn – all the reactor designs are different, but there is an optimal order to learn from experience. This factor also applies to the Sequence.
2. Supply chain – there is no longevity of work within the Magnox fleet for the supply chain under the Care and Maintenance approach. If the strategy changed to continuous decommissioning, skills and experience would be preserved within the workforce. It would also make the supply chain more competitive in a global market.
3. Early clearance of sites could release them for other uses.
4. Knowledge of the condition and layout of the site is maintained.
5. Long term view of staff requirements, avoiding loss of skilled staff
6. Greater investment in UK 'nuclear' skills, driving efficiency and ability to develop business within UK or abroad
7. Support BEIS Industrial Strategy
8. Greater confidence in UK nuclear overall – more likely for investment and support for new missions
9. AGR and Magnox synergies
10. Ageing of plant, asset condition. Minimise spending associated with 'standing still'.

4.7

The factors that most influence the sequencing of reactor dismantling include:

- Waste management, interim storage or other disposal options
- Synergies with AGR decommissioning
- Calder Hall (whether to bring into pool for decommissioning to facilitate work at Sellafield)
- Lead and learn from one site to another
- Affordability, lifetime costs
- Local factors – impact on particular sites e.g. loss of employment opportunities in Trawsfynydd
- New missions – new for old
- Management of ageing
- Resources and ability to deploy

These factors can be viewed as 'lenses' through which the case for decommissioning a site can be viewed. Depending upon which 'lens' is considered most important would change – for example – a sequence. Different stakeholders are likely to have different perspectives on each lens. Some sites viewed through some lenses will move up the hierarchy for decommissioning, but viewed through other lenses their priority will decrease. NDA needs to be able to demonstrate the rigour of the criteria with which each site is critiqued and rated, and that the criteria have been applied consistently.

4.8

SB went through the next steps for NDA. They are:

- taking the work done by Magnox and turning into a case for change to present to government (May-June 2018);

	<ul style="list-style-type: none"> • examining the timing and sequencing separately to prepare papers to submit to government; • gathering numerical data to underpin the Magnox work, particularly waste generation rates, package requirement and plant ageing effects • looking at Strategic Enablers: <ul style="list-style-type: none"> ○ Supply chain, benefits and disbenefits, UK plc contribution ○ Maintenance of sufficient knowledge and skills ○ Savings with continuous approach (no start/stop, efficiencies) ○ Enabling other missions i.e. release land earlier • considering whether Calder Hall (A former Magnox station but part of the Sellafield site, and therefore not part of the Magnox 'estate') should be included in the programme to enable release of land at Sellafield; • looking at the relationship between 'A' Magnox and 'B' AGR station, and how decommissioning an 'A' station at certain locations could influence/assist the decommissioning of 'B' stations. • seeking stakeholder views – what is important? Early and on-going discussions with SSGs/NuLeAF and local authorities. SB asked NuLeAF to circulate the slide showing their engagement timetable. • developing a detailed stakeholder engagement plan to support both Timing and Sequencing phases. 	CD
4.9	<p>Wrapping up his presentation, SB said that the current strategy wasn't optimal; any new strategy would be constrained by funds and resources which will mean that we could not do more than between 1 and perhaps 3 sites at any one time; NDA will not be looking to develop the entire sequence of decommissioning as factors may change as lessons are learnt from actual decommissioning; stakeholder views on what matters most need to be considered and this will be used to inform both the case for change, the strategy and which site/s would be accelerated.</p>	
4.10	<p>The meeting opened up to questions:</p>	
4.10.1	<p><i>Q: How much will the sequence of decommissioning be affected by new build. Will you be looking to use land released by decommissioning stations for use in new build?</i></p> <p>A: It is a key factor – new for old affects 3 or 4 sites. There are other factors such as the timing for construction and the type and availability of land for new build which will also have a bearing.</p>	
4.10.2	<p><i>Q: Once the decision is made how quickly would you expect to begin decommissioning?</i></p> <p>A: Within 5 years. We want to avoid spending funds on Care and Maintenance preparations which could be used for decommissioning.</p>	
4.10.3	<p><i>Q: How will you be expecting local authorities to feed into this work?</i></p> <p>A: Our intention is to go to each local authority. The paper on timing will be posted on the NDA website for comment.</p>	

- 4.10.4 *Q: How long will it take to decommission a site?*
A: My estimate is 5-8 years depending on the end state and starting position
- 4.10.5 *Q: Can you say more on the waste management issues?*
A: All sites would need to have interim storage for HAW before it went to a GDF. Whilst it would be preferable for a GDF to be available, it won't be a constraint if it is not available when reactor decommissioning starts. When costs of storage were originally estimated they were based on Sellafield, but it has become apparent that the costs of building on Sellafield are several orders of magnitude greater than on a Magnox site. Overall, the lack of GDF won't make much difference, so the costs are less of a restraint than previously envisaged.
- 4.10.6 *Q: What is the disposal route for asbestos?*
A: *Currently we bag asbestos waste and dispose of into authorised landfill based disposal sites. These disposal options may well not be available in the future and this is a driver for accelerating some sites now. It is possible that in the future we could thermally treat the asbestos rather than dispose in a landfill as such an approach will also destroy the hazard rather than moving from one site to a disposal site. The French have used this approach.*
- 4.10.7 *Q: What happens to the spent nuclear fuel?*
A: Only Calder Hall and Wylfa have fuel on site. It will go Sellafield and as much as possible will be reprocessed before Magnox reprocessing ends.
- 4.10.8 *Q: Every local authority will want their site to be decommissioned first. How will you manage their expectations?*
A: We need to understand what the reasons are why a local authority thinks its site is a priority. They may think of reasons which we haven't considered.
- 4.10.9 *Q: Will you do one steel and one concrete pressure vessel first in order understand the issues involved in decommissioning each type?*
A: One of the lenses to consider sequence is lead and learn, so that would be a factor. However, the regulator and others may say that ageing is more important as a factor which in turn would lead to the adoption of a different sequence. We won't be able to please everyone, but we will need to be able to demonstrate the evidence based reasoning behind the selection, and that we understand issues local to each site.
- 4.10.10 *Q: Early decommissioning could help new build sites, but that dialogue needs to happen soon.*
A: We need to understand government priorities in order to apply the new for old 'lens'. Also, although we are making the case for moving away from Care & Maintenance as a policy, some sites will still sit for a period of 30 years or so before it is their turn for decommissioning as we are constrained by the number of sites we can decommission at any one time by factors such as affordability and resources. However, they will be chosen to wait because they are in a state to do so.
- 4.10.11 *Q: You used the phrase 'natural order', could you explain that?*
A: This is more or less the reverse order of construction and is in the 'lead and learn' lens

	<p><i>Comment from meeting: in discussions with local authorities and SSGs, you need to articulate why choices and decisions have been made. There will be disappointment for some sites and the implications for those that aren't prioritised need to be explained and understood.</i></p>	
4.10.12	<p><i>Q: What will happen to the graphite from reactors?</i> A: Originally graphite was thought of as a 'special waste', however, Magnox has reviewed this approach and now it is considered a common waste and could be placed in 4 metre boxes, grouted and placed in an interim store until the GDF or other disposal site is available.</p>	
4.10.13	<p><i>Q: We have heard proposals for continuous decommissioning before, which have then been withdrawn. How can we have confidence that this approach will be implemented?</i> A: All that I have presented to you has been widely discussed within NDA, Industry and other stakeholders such as BEIS. There is general agreement that the currently approach is not optimal, and although no decision has been taken to change strategy, there have been no blocks so far.</p>	
4.10.14	<p><i>Q: How is EDF engaging with this? Their sites will enter decommissioning soon.</i> A: EDFE are developing their own decommissioning strategy to decommission the AGRs. Following the 2009 sale of British Energy to EDFSA, HMG has the option to take back ownership of the AGRs (and later the PWR) after they cease generation and I believe this review as to options is underway.</p>	
4.10.15	<p><i>Q: Will skills learnt on one site be transferred to another?</i> A: The sequence of decommissioning might change because operational and tactical requirements favour a different approach to utilise skills learnt – the 'lead and learn' lens. But regardless of the lens learning derived from the decommissioning of one reactor will be valid for the others in terms of costs, technical approach etc.</p>	
4.10.16	<p><i>Q: How is this affecting work being currently done on sites, which are still working towards Care & Maintenance?</i> A: SLCs must still work to the Care & Maintenance strategy as this is current government policy. However, where they are suggesting deferral of work to avoid nugatory spends, this is being scrutinised.</p>	
4.11	<p>The Chair thanked Simon for his presentation and looked forward to further engagement opportunities.</p>	
5	PROPOSAL FOR MEETING WITH MAGNOX	
5.1	<p>PM introduced the paper which had been circulated prior to the meeting. It outlined the background and proposed format for an annual meeting with Magnox to discuss their work programme.</p>	
5.2	<p>The Steering Group agreed that the meeting should be held as part of a Steering Group meeting to allow elected members to participate. Also, given the limited time period which the CFP contract has left to run, NDA should also be invited to attend.</p>	PM

6	UPDATE ON THE GEOLOGICAL DISPOSAL FACILITY SITING PROCESS	
6.1	PM introduced the paper which provided updates on: <ul style="list-style-type: none"> • Consultations on the GDF framework; • Proposal for a GDF consultation workshop; • CoRWM; • Geological Disposal: regulators scrutiny of RWMs work; and • NuLeAF webpages on international approaches to geological disposal 	
6.2	PM advised the meeting that the latest indication was that the working with communities and land-use planning consultations would open early in the new year. The Steering Group agreed that the GDF workshop which had been planned to take place at this meeting should be rescheduled for 24 January in a combined Steering Group and Radioactive Waste Planning Group meeting	PM/CD
7	UPDATE ON NATIONAL DEVELOPMENTS IN RADIOACTIVE WASTE MANAGEMENT	
7.1	PM introduced the paper which gave updates on: <ul style="list-style-type: none"> • Theme Overview Group (TOG) meetings; • Publication of NAO Report, the Holliday Inquiry and PAC hearing on the Magnox PBO contract; • Developments at Magnox; • Launch of Industrial Strategy; • Meeting of SCCORS on 30th November; and • Appointment of new Chief Nuclear Inspector at ONR. 	
7.2	PM advised the meeting that NDA had produced Draft Guidance for Site End States for its SLCs. This would not be put out to consultation. The Steering Group asked PM to write to NDA asking if the Draft Guidance could be circulated when it had been agreed.	PM
7.3	NDA is reviewing its Transport Strategy with a view to better use of its services. The Steering Group asked PM to write to NDA expressing the Group's views that there should be wider consultation on this review.	PM
8	DATE OF NEXT MEETING	
8.1	The Secretariat had been made aware that the proposed meeting date of 14 th March conflicted with the NNLAG Spring Conference.	
8.2	Consideration was given to whether NuLeAF could hold a meeting in the margins of the Conference, but it was agreed that the secretariat should find another suitable date for the meeting.	
9	ANY OTHER BUSINESS	
9.1	The Chair advised the meeting that he and the Executive Director	

9.2	<p>were that week attending a conference in Vienna arranged by IAEA on 'Learning from Experience of Local Involvement in Radioactive Waste Management'. Funding had been supplied by IAEA to enable them to attend. PM had returned the previous evening and the Chair was flying out to Vienna after this meeting. PM said that there were a wide range of countries participating. He had given a presentation which seemed to be well received. A full report on the meeting will be provided to the next Steering Group.</p> <p>The Chair also reported on the visit to Madrid and the GMF conference by himself and PM. GMF is a group of European municipal authorities with nuclear facilities who are seeking to present a voice to European government on nuclear decommissioning issues. NuLeAF has taken membership for one year, with the agreement of the Steering Group, and may consider a more in-depth role once more is known about the operation of the forum.</p>	
10	EGM: FINANCE, FUNDING AND STAFFING	
10.1	<p>PM introduced the paper which set out:</p> <ul style="list-style-type: none"> • the income and expenditure estimates for FY 2017-18; • proposed membership subscription tariffs for FY 2018-19 (unchanged); • budget for FY2018-19; and • proposal to renew staff contracts for Executive Director and Director's Assistant. 	
10.2	The meeting agreed to hold the membership subscriptions at their current rate.	
10.3	It was noted that a 2% pay increase had been offered, and the budget for 2018-19 should be amended accordingly. NuLeAF should maintain efforts to ensure adequate funding.	
10.4	The meeting asked that the list of contributing members be circulated.	CD
10.5	The meeting agreed that it wished to retain the services of an Executive Director and Director's Assistant. It asked that Suffolk County Council, the hosting authority, should approach the current incumbents with the view of renewing their contracts for a further two years.	JP/CD
11	PRESENTATION BY RWM ON NATIONAL GEOLOGICAL SURVEY WEBSITE	
11	The Chair welcomed Andy Parkes, Rob McLaverty and Simon Napper to the meeting.	
11.1	AP advised the meeting that what they would see are part of the on-going development of the webpages which will support the GDF siting process launch. All the material will be presented on a gov.uk website, but there will also be a campaign website which	

	will be more flexible.	
11.2	A point was raised that the regions did not correspond to anything anyone immediately recognises. AP said that main town and cities would be shown so that people will be able to roughly plot where they are on the map.	
11.3	In response to a comment that calling it a Geological Disposal Facility over emphasised the place of geology in the safety case, AP agreed that this was a multi-barrier approach, but that geology provided the long-term barrier to radionuclides travelling to the surface. Perhaps the link to the safety message needs to be emphasised.	
11.4	<i>Q: How will you address the long time periods over which the material needs to be kept safe?</i> A: One way we have thought of doing this is by showing what has happened to society over a long period of time, and comparing it to what happened to the geology. Hopefully this would demonstrate the stability of geology and why it plays an important role in keeping the disposed materials safe.	
11.5	RWM want communities to engage with them, and come to them with questions, rather than provide too much information which could be wrongly combined and produce an erroneous view.	
11.6	<i>Q: will there be any location where you say this area is not suitable?</i> A: At a sub-regional level we may say that there is unlikely to be a suitable volume of rock to support development of a GDF. An example of this would be South Wales because of the coal mines.	
11.7	The website was supported by a number of talking head videos. AP said that if there were any topics which NuLeAF members felt would benefit from a video to get in touch.	All
11.8	<i>Q: Has consideration been given to coastal erosion?</i> A: Surface level operations will take place for 150 – 200 years from now. Any site would be able to be defended from incursion whilst it was operational. Once the GDF had been sealed, then in a way, incursion of the sea would provide an additional barrier as the sea water would prevent ground water leakage.	
11.10	<i>Q: How will the voids be maintained?</i> A: Voids will only be open whilst waste is being emplaced. Once emplacement is complete the plan is that the voids will be backfilled. The vast majority of the footprint of a GDF will be solid rock. AP accepted that some communities and opinions might be supportive of retrievability of waste but he felt that was not as safe as the immediate backfilling of voids.	
11.11	Members said that people would benefit from relating depths to things which they were familiar with, so if possible use local	

	references. The use of sub-titles for hard of hearing on the videos would be recommended.	
11.12	AP thanked the meeting for their feedback and comments. It was not yet known when the website would be available to the public, but government wished to run the working with communities and land-use planning consultations first. There may be a further opportunity to comment on the webpages before they go live.	
11.13	The Chair thanked RWM for their presentation. The meeting closed at 14.52.	

ACTION LIST

6th December, 2017			
ITEM	ACTION	BY	OUTCOME
2.1	Post minutes on the website	CD	Done
4.8	Circulate presentation slide with details of NDA engagement on accelerated reactor decommissioning, and post on website.	CD	Done 7 December.
5.2	Contact Pip Hatt re meeting with Steering Group and invite NDA to attend.	PM	Magnox have agreed to attend June SG mtg.
6.2	Arrange combined SG and RWPG meeting on 24 January and hold postponed GDF workshop	PM/ CD	Consultations did not launch in time. Workshop held with March SG mtg.
7.2	Write to NDA re Draft Guidance on Site End States asking if this can be circulated once agreed	PM	
7.3	Write to NDA asking for the opportunity to comment on the draft Transport Strategy	PM	
10.4	Circulate list of contributing members.		
10.5	Approach staff with a view of renewing contracts for a further two years. Make timely arrangements with Suffolk County Council HR department.	JP/ CD	
11.7	Advise AP of any further topics on the NGS webpages which would benefit from a talking head video	All	