

EA GDA Consultation response from WMTC

1. Do you have any views or comments on our preliminary conclusions on management systems?

It is unclear if the organisational capacity and capability is considered 'adequate' after investigation by the EA / ONR or just a report from GNSL.

On the design management aspect this is an assurance given by GNSL and, as yet, unverified. This point is too substantial to assume it would be completed during the remainder of the GDA process.

The transfer information to future licensee arrangements are, again, assumed that they will be completed, 'adequate progress' is vague.

It is pleasing that the EA is pursuing Assessment Findings and Issues relating to the Safety case management.

2. Do you have any views or comments on our preliminary conclusions on strategic considerations for radioactive waste management?

There are too many unknowns here. As radioactive waste management is such an important consequence of nuclear power to use language such as 'acceptable' and that GNSL 'will help to ensure proper protection of people and the environment' does not engender confidence.

3. Do you have any views or comments on our preliminary conclusions on the process for identifying best available techniques or on the techniques used to minimise production and disposal of radioactive waste? Please state which you are commenting on.

It is deeply concerning that this aspect has caused the EA as many as 2 GDA Issues and 10 Assessment Findings. The repeated use of 'A future operator' would mean that the Transfer information to future licensee arrangements referred to in Question 1 are inadequate.

Processing gaseous wastes - very concerning that the EA 'agrees with GNSL' that no abatement of tritium or C₁₄ is practicable. With the history of unregulated emissions of tritium then abatement should be mandatory.

Processing liquid wastes - what guarantees are there that LRWMS will be held within limits?

4. Do you have any views or comments on our preliminary conclusions on minimising the discharges and impact of gaseous and liquid waste, and our proposed limits and levels? Please state which you are commenting on.

Initial section - It is unsatisfactory that proposed annual radioactive gaseous discharge limits are not explained in understandable terms, only in Becquerel.

Comparison of UK HPR1000 discharges - use of the word 'estimated' when regulating gaseous and liquid radioactive waste is insufficiently robust. There is no UK HPR1000 to compare with and even the non-UK ones being developed will not provide figures yet and, even then, would be derived whilst under different regulatory standards and parameters.

5. Do you have any views or comments on our preliminary conclusions on the management and disposal of solid radioactive waste and spent fuel? Please state which you are commenting on.

Initial section - some concerning language is used, for example: 'appear to be disposable'. There are clearly still a number of unknowns and unfinished analysis of the waste streams. Additionally it is concerning that there are so many GDA Issues and Assessment findings that are still outstanding in this critical area.

Decommissioning wastes - the assertion that the Reactor pressure vessel decommissioning waste would only be classified as ILW is questionable. What other studies have been carried out to date? HAW is questioned later on the same page 61/169.

Management and disposal of lower level wastes - appalling that Table 9-3 suggests that LLW resins will be packaged and sent off-site for incineration. How can that possibly match the claim that the nuclear life-cycle is low carbon?

Conditioning and packaging - concerning that GNSL's preferred 210L drum is 'not an acceptable package for a UK based GDF...'. The following section tries to address that yet still adds in another 'weak' point that could allow unplanned escape of radioactivity. Logic dictates that BAT is not being followed whilst there is this incompatibility of storage of ILW between the ISF and GDF.

Interim storage of ILW - The notion that the GDF would either be available or ready introduces another factor of uncertainty. The ONR has predicted that the proposed development dates will simply not be met and likely to slip further.

Spent Fuel - The type of fuel assembly has only been used since 2012, therefore the confidence in the claims that GNSL makes are unverifiable. The claim that a future operator will start to move SFAs to a GDF in 2030 one assumes the reference to 'GNSL, 2020d' means a reactor start date of 2020 is not generic. It would be clearer to specify a time duration rather than an unachievable date.

In the document AR05 from p33 RO-UKHPR1000-0041 is requesting more information on disposability and delivery. This capability is not demonstrated in the consultation document.

6. Do you have any views or comments on our preliminary conclusions on monitoring discharges and disposals of radioactive waste? Please state which you are commenting on.

Monitoring gaseous waste - From the documentation it is hard to decipher if the monitor data collected (inc. within the discharge stack) is collected by the EA or just figures supplied by the operator. If the latter then it makes a mockery of regulation. It is also unclear whether the analysis of the different radioactive isotopes will be provided or monitored by regulators.

Monitoring liquid waste - reassurance will be required to know that the EA will monitor discharge line outputs and vicinity.

7. Do you have any views or comments on our preliminary conclusions on the impact of discharges of radioactive waste?

Generic site description - Ironic that additional information concerning the Generic site that should have been specified from 2018 still not provided.

Dose assessments - it is concerning that GNSL are having to model better results?

Annual does to individuals - Ironic that in a Generic Design a specific site (ie Bradwell) is indicated.

Comparison with standards - no indication is given how the figures of 20 to 23uSv/y were derived. This section assumes either this would be an isolated, single reactor or sited next to one of an existing fleet. It does not include assessment of site dose from a closed station and associated reactors in Care & Maintenance.

8. Do you have any views or comments on our preliminary overall conclusion on radioactive substances permitting?

Due to the extent of unresolved issues and assessments the EA's conclusions are premature.

9. Do you have any views or comments on our preliminary conclusions on water abstraction?

Cooling water requirements - The temperature difference of 9.7°C is far higher than the maximum temperature indicated in the Bradwell B Stage One Consultation (BRBS1C) document for DIRECT Cooling. This would be catastrophic to a marine ecosystem in an estuary or shallow river.

The (direct) cooling water requirement (page 101/169) is quoted at ~198,000m³/hr, again this differs from the figure in the BRBS1C of direct cooling water requirement of ~234,000m³/hr (for a single reactor), an increase (or error) in excess of 18%.

10. Do you have any views or comments on our preliminary conclusions on discharges to surface waters and groundwater?

Use of Hydrazine whilst reducing potential discharge amounts also introduces an additional toxicity.

Not enough detail has been provided to assess the damage the radioactive and non-radioactive waste streams would cause referencing the list of substances on page 107/169.

There is insufficient evidence that discharges to groundwater would not be polluting.

11. Do you have any views or comments on our preliminary conclusions on the operation of installations?

It is an irony that a nuclear power station, supposedly low carbon, requires the back up of highly carbon intensive, GHG emitting, fossil-fuelled diesel generators. This presents a further risk of contamination both after operation and during decommissioning.

Combustion plant operations - concerning that the modelling for EDGs showed levels exceeding requirements.

12. Do you have any views or comments on our preliminary conclusions on the control of major accident hazards?

Concerned that whilst the EA considers the UK HPR1000 will not be a COMAH establishment initially, the strategy to monitor a change of status is unclear.

13. Do you have any views or comments on our preliminary conclusions on the measures to prevent and minimise leakage of fluorinated greenhouse gases and ozone-depleting substances?

Fluorinated greenhouse gases should be independently monitored and catalogued.

14. Do you have any views or comments on our preliminary overall conclusion on the acceptability of the design?

If the iSODA or SODA are 'valid only for a site meeting the identified generic site characteristics' then it effectively cannot apply should Bradwell still be considered a 'potentially suitable site' when the new NPS finally becomes available.

15. Do you have any overall views or comments to make on our assessment, not covered by the previous questions?

Despite the duration of the consultation since January the reality is that the closing days are when consultees and respondents would be finalising their responses. It is therefore grossly unreasonable that it should be closing both during the Easter holiday weekend and at the close of the UK financial year (affecting at least local town and parish councils). It should be borne in mind that Easter is the fulcrum of the religious calendar for Christians.

How satisfied are you with this consultation tool?

Whilst the online mechanism of the tool is acceptable the bigger question is with the consultation itself, see previous answer.

As far as this being a workable system then it did not present any difficulties. The ability to store a 'Save and come back later...' 'snapshot' is very useful.