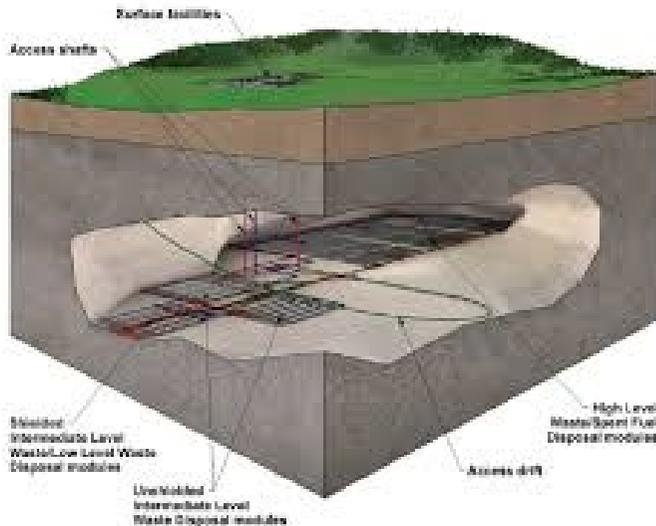
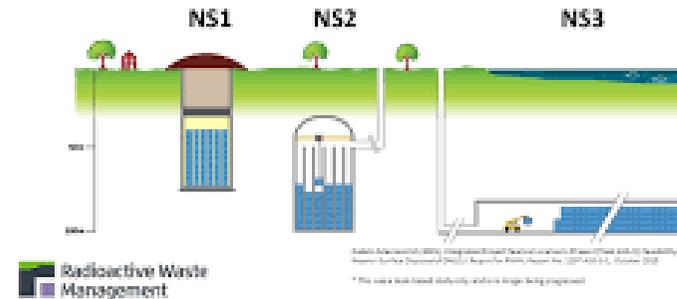


What should be done with our radioactive waste?



Near surface disposal facility concepts

- Direct access silo (example: Hunterston Pathfinder, UK)
- Underground silo (example: SFR ILW Silo, Sweden)
- Vault facility (example: SFR LLW Facility, Sweden & Rokkasho, Japan)



Sean Morris
NFLA Secretary
 Joint conference, Menai Bridge, April 13th 2019



Agenda

- **A huge radioactive waste legacy**
- **Previous attempts to locate a repository**
- **New nuclear build and waste**
- **‘Expressing an interest’ and RWM seminars**
- **Welsh / NI Councils response / well being legislation**
- **NFLA response / policy / fact sheet**
- **Geological screening / canisters**
- **National Policy Statement for a ‘GDF’**
- **Conclusions**





Previous attempts to find a site

- **Flowers, 1976: “There should be no commitment to a large programme of nuclear fission until it has been demonstrated beyond reasonable doubt that a method exists to ensure the safe containment of long-lived, highly radioactive waste for the indefinite future”**
- **NFLA have calculated five failed previous attempts to find a long-term site for storing HLW / ILW since 1976 – all failed largely due to public opposition**
- **Latest failed in 2013 when Cumbria CC vetoed over geology, concerns over financial benefits and the wider stakeholder engagement process**
- **UK and Welsh Government new policy still remains to support a GDF (deep underground repository) and not consider any alternatives**



New nuclear - new waste

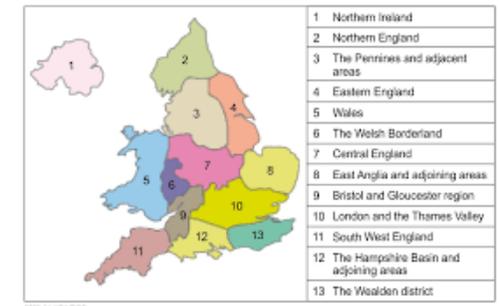
- UK & Welsh Government both support new nuclear power stations
- New process to show that nuclear legacy is ‘being dealt with’
- England and Wales – new 16 GW programme possible
- New waste – less volume, much more radioactive
- Wylfa B - Radioactivity of spent fuel 80% of all current GB waste
- New waste could be stored on site until 2185
- Is one GDF big enough for old and new waste?





Geological screening

- RWM published high level geology for England, Wales, N Ireland
- In previous process only looked for “sufficiently good” geology
- NFLA - debate on geology or engineered barriers not taken place
- RWM will only look at this AFTER an expression of interest is made
- Geology should be vital for a site that needs to last a very long time!
- Exercise only looks like looking for “adequate” geology





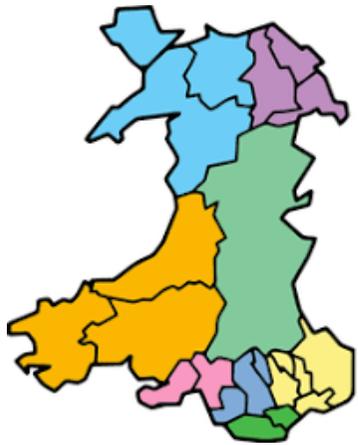
Express an interest / Site Evaluation

- UK Government wrote to all Councils in England, Wales, NI
- “Do you want to express an interest to host a ‘Geological Disposal Facility’ (deep underground repository)?
- RWM / Welsh Government consultation on how such sites would be evaluated
- Workshops to be held around England and 2 events for Wales
- A political decision mixed with a technical consultation – not a good coincidence
- NFLA Secretary took part in Manchester workshop and told RWM they were replicating the mistakes of the past





Anger in Welsh & NI Councils



Unitary Councils opposing a GDF in their or adjoining area:

- Swansea, Ceredigion, Powys, Ynys Mon, Neath Port Talbot
- Over 50 community councils as well
- RWM workshops cancelled and converted to 1 hour 'webinars'



All 11 Councils raised concerns with formal resolutions opposing waste coming to NI by 3 Councils:

- Newry, Mourne and Down
- Fermanagh and Omagh
- Armagh, Banbridge and Craigavon

Welsh Well-Being of Future Generations Act – does siting such a facility for thousands of years not affecting future generations?!



Swansea Council resolution

- This Council has a proud record of standing up to those who would seek to damage our environment. In 2016 this Council unanimously supported a Notice of Motion to oppose any proposals for “Unconventional” Gas Development (Fracking) within the City & County of Swansea. This was in response to growing public concern that any unconventional gas extraction methods would entail significant harm to the environment and to the health and wellbeing of local communities.
- In addition, Council has recently added to its Corporate Plan a well-being objective that commits to 'Maintaining and enhancing Swansea's Natural Resources and Biodiversity'; dumping nuclear and radioactive waste runs completely counter to this objective. Recently the UK government department for Radioactive Waste Management (RWM), is proposing to find a suitable location for a “Geological Disposal Facility” in the UK, to bury highly dangerous nuclear and radioactive materials accumulated over the past 60 years, to be stored hundreds of metres below ground. Potentially the site could be located in Wales.
- Whilst Swansea has not been identified as a potential site, widespread public concern has quite rightly emerged with the announcement of a consultation session in our City. This council takes its responsibility to preserve and protect the City & County of Swansea against any threats to our local natural marine and urban environment very seriously. Swansea was extremely proud to be the first designated Area of Outstanding Natural Beauty (AONB) and it is of critical importance that we protect this legacy for future generations. Swansea will continue to uphold its commitment to support a cleaner greener energy future.
- Council resolves therefore that: The Council strongly objects to the proposal from Radioactive Waste Management (RWM), to hold a consultation event in Swansea.
- **The Council is disappointed that this decision was made without consulting or informing Swansea Council of its intent and feel it is very wrong not to inform the elected representatives of the City of Swansea of their intentions before going to the media with a press statement.**
- **The Council objects to the establishment of any Geological Disposal Facility within the City & County of Swansea.**
- **The Council will also strongly support any other Welsh or UK local authorities that object to these proposals. The Council requests that the Leader writes to the Prime Minister, the First Minister for Wales and to the UK Government department for Radioactive Waste Management (RWM), to express the views of this Council.**



NFLA response to the RWM

- It was ‘clumsy’ to launch consultation at same time as GDF expressions
- Transportation of waste is a site evaluation issue
- Geology of any proposed sites needs to be considered in totality
- Local and regional political environment is important
- GDF is controversial – retrievability should be considered
- Regular review of alternatives to a GDF should be included
- The ethical issues in deep repository should be considered
- NFLA remain sceptical a deep waste repository is the answer



NFLA policy on HAW

- **Focus on a GDF is premature. More urgent are interim stores**
- **NFLA sceptical GDF is best answer – retrievability, over 100 technical issues**
- **Wales / UK should consider Scottish alternative policy**
- **Is it best geology or mediocre geology with engineered barriers?**
- **Proposals weaken role of county councils**
- **Wider community – eg transport, science, longevity of repository**
- **Concern that some councils may put themselves forward out of economic desperation when geology should be critical**
- **Communities could be trapped in the process for as long as 20 years**
- **MOD, Govt or private land could be put forward – no local say**
- **New build could increase waste legacy six fold – Councils needs to know this!**

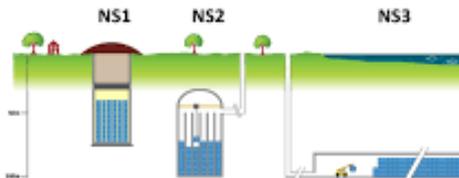


Scottish Government policy

- **Scottish Government opposes new nuclear build**
- **Advocates a ‘near site, near surface’ management policy for its radioactive waste**
- **Both retrievable and monitorable**
- **Adequate for most of Scotland’s radioactive waste legacy**
- **RWM / NDA have to look at this alternative – why not keep it open for England & Wales?**

Near surface disposal facility concepts

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Radioactive Waste
Management

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Copper canisters – Swedish ruling

- **UK GDF follows closely Swedish / Finnish processes**
- **Swedish court has rejected application for GDF**
- **Concerned that copper canister is not robust enough for the waste**
- **Corrosion and leakage – needs to be resolved now**
- **Court accepted concerns of NGO MKB over developer**
- **Regulator had approved design**
- **Note MKB funded by the Swedish Government as part of GDF process to ensure it is done fairly & robustly!**





Remember....

- New nuclear will create 22.5 million TBq of waste
- Renewables create 0 TBq of new waste!





Conclusions

- **Search for a GDF diverts attention from safe and secure management of unavoidable legacy wastes already created**
- **Unlikely GDF will be in place until at least 2045 and not be fully filled till 2135**
- **Much bulky HAW will not be needed to be dealt with till 2080**
- **Plenty of time to research alternative management options**
- **Welsh and NI Councils have said clearly NO to a GDF**
- **Possibly 2 or 3 English Councils may express an interest**
- **NFLA will represent its Councils interests throughout this 6th process**

Conclusions?