**COUNTRY SUMMARIES: 2019**

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| **Australia** |
| Progress in 2019 for Australia’s repository program will hinge on the outcome of a court case initiated by a South Australian Aboriginal group.  The group wants their people to be included in a community ballot to determine whether the proposed radioactive waste management facility for the disposal of Australian low-level waste and the interim storage of the country’s intermediate-level waste (which is slated to be situated in the Kimba or Hawker areas) should proceed.  There is a Federal Court Hearing on 30 January.  No judgement is expected on that date.  With the possibility for appeals, and potential further legal actions brought by other interest groups, the Australian repository program could yet be a protracted process.  For example, over Christmas, another Aboriginal group tabled a new, separate law suit claiming they were not properly involved during the public consultation process.  The current federal Australian government is seeking to negotiate an out-of-court agreement, to build trust and to avoid a potentially protracted delay in the siting process. However, there are federal government elections due in 2019 (expected to be held by May). While there is bipartisan agreement on the need for a national radioactive waste management facility, the results of the election could further complicate political decision-making. |
| **Belgium** |
| In 2018, ONDRAF made recommendations to the Belgian Government advising that geological disposal is the best available option for managing the country’s higher-level radioactive wastes.  The Government was also advised to conduct an extensive public engagement programme before final decisions are taken on the siting of any repository.  However, the Belgian Government has not yet reached any decisions. The coalition government is not stable, and it is uncertain when the Belgian Government will make a decision on geological disposal.  In the meantime, construction progresses on the low-level waste repository in Dessel (due for completion in the first half of the 2020s). |
| **Canada** |
| There are three separate repository programmes in Canada.  The Nuclear Waste Management Organization Organisation (NWMO) is responsible for the national deep geological repository for higher-activity radioactive waste; Ontario Power Generation (OPG) is planning a deep geological repository for low and intermediate wastes; Canadian Nuclear Laboratories (CNL) seeks a near-surface facility for low-level radioactive waste.    Each project is deeply engaged in conversations with local communities.  There are no major project milestones in 2019 for any of the planned repositories.  It is an on-going process of working with affected communities, paying particular attention to the needs and concerns of indigenous peoples.  Canada has led the way in early and proactive community engagement – vital for building public acceptance, but necessarily moving at a pace with which the communities feel comfortable.    NWMO have started the deep borehole drilling phase of their geological investigations, and this will continue through 2019.    The added complication for Canada are the cross-border concerns of environmentalists in Canada and the US about building radioactive waste repositories close to the Great Lakes. |
| **Croatia (see also Slovenia)** |
| Slovenia and Croatia share a nuclear power plant, at Krško in Slovenia – a legacy from the former Yugoslavia. Discussions continue between the two countries on finding a site for the deep geological disposal of higher activity radioactive waste.  In the meantime, Croatia is pressing ahead with a low-level radioactive waste facility despite objections from Bosnia-Herzogevina that the proposed facility is located too close to their shared border and that there has been too little consultation and engagement with Bosnia. |
| **Czech Republic** |
| In 2019 the Czech Republic are expected to finalise the shortlist of areas which could potentially host a deep geological repository.  Advice and recommendations will be put to the Czech Government, but no further decisions or activity is planned in 2019. The siting process and geological investigations will start after the government has finalised the shortlist of areas. |
| **Finland +** |
| The Finns continue with the excavation and construction of their deep geological repository. The process is governed by regular reviews and staged regulatory licensing approvals. No significant events are expected in 2019. |
| **France** |
| French authorities remain confident that a general licence application for the proposed repository at Bure will be submitted by the end of 2019.  A formal public debate organised by the National Commission of Public Debate was expected during 2019. The debate is not intended to review geological disposal policy, but is intended to sustain transparency by staging a further discussion that engages the public in radioactive waste management. However, the Commission’s priorities may be changed following the recent ‘gilets jaunes’ protests in France. Time may now be given to more pressing issues of public interest rather than geological disposal of radioactive waste. |
| **Germany** |
| 2019 could be an interesting year for Germany.  Legislation in 2017 laid out a new framework for how Germany would go about selecting a radioactive waste disposal site, and also ensured there would be significant public consultation and engagement in that process.  In the coming year, Germany will initiate a public communications and engagement programme, as a key part of the process of presenting the federal government with a detailed dossier in 2020 of geological information, analysis of public sentiment, and recommendations on the next stage. |
| **Japan •** |
| Understandably the Japanese are taking a steady and cautious approach to their repository site selection process. The social and political fall-out from Fukushima only adds to the problems of managing long-established anti-nuclear public sentiment, distrust in politicians and the nuclear sector, and the geological complexity and insecurity of parts of the country.  The Japanese Government published a "Nationwide Map of Scientific Features relevant for Geological Disposal" in 2017, which identified potential geological ‘green areas’ where it could be possible to safely construct a deep geological repository. This map has been the basis on which NUMO (Nuclear Waste Management Organisation) has been building awareness and understanding of the issues and opportunities amongst mayors and municipal officials across the country.  NUMO’s difficulties are evident from separate actions by a number of the Prefectures, which have already indicated that they are not prepared to host a deep geological repository.  The Japanese will continue their cautious consensus-building approach through 2019. Not just with mayors and municipalities, but with a programme of public information events.  It is worth noting that despite broader post-Fukishima anti-nuclear public and political reaction, recent media commentary has been urging decisions be made on radioactive waste disposal. It seems the mainstream Japanese media believe that removing radioactive waste from the surface is a better option. |
| **Korea** |
| South Korea is conducting a significant public consultation and discussion programme, alongside its technical preparations to build a deep geological repository for higher-activity radioactive waste.  These public discussions and the technical analysis will inform subsequent Government decisions on how to select a site for the repository. There are no plans for significant announcements in 2019. |
| **Luxembourg** |
| Luxembourg produces very small quantities of higher-activity radioactive waste, mainly from medical sources. In 2018 the country entered into an agreement with Belgium for the interim storage and final disposal of its radioactive waste. Legislation has been laid before the Belgian parliament. |
| **Saudi Arabia** |
| The Saudi’s have not yet published a detailed radioactive waste management programme and timeline. During 2018 Saudi Arabia announced an intention to build their repository in a militarised zone to be established on the border with Qatar. This announcement came at a time of heightened tensions between the two countries. Whether Saudi Arabia persists with its proposal may be subject to wider geopolitical and diplomatic discussions in the region. |
| **Slovenia (see also, Croatia)** |
| Slovenia and Croatia share a nuclear power plant, at Krško in Slovenia – a legacy from the former Yugoslavia. The countries are planning to build a joint deep geological repository somewhere in Slovenia or Croatia for spent fuel and higher-activity radioactive waste from the Krško plant.  In the meantime, Slovenia is pressing ahead with a facility for low and intermediate level radioactive waste.  An environmental impact assessment is to be conducted to secure the necessary environmental consents.  With other documentation expected to be completed in the new year, the Slovenian Government is confident a final building permit will be granted during 2019.  Construction is planned from 2020-22, with the facility starting operations in 2023. |
| **Sweden** |
| Following the decision of the Environmental Court in January 2018, SKB are required to submit further information on copper corrosion to the Swedish Government by 30 April 2019.  However, currently there is effectively no Swedish Government. Discussions continue between the political parties about forming a government, following the results of the September 2018 elections. It remains possible that another election may be necessary, further delaying the formation of a government.  Regardless of the outcome of these political discussions, it is expected that the Government will take 6-9 months to consider and respond to SKB’s copper corrosion evidence. That would mean it would be at the end of 2019 at the earliest before next steps were taken – assuming the Swedish Government are content to proceed.  A final decision by Osthammar municipality is required before the government can give a permit for the planned repository at Forsmark to proceed. Although a local referendum is not required, it is thought the municipality will hold one before taking their own decision. Nobody is expecting these local votes until 2020 at the earliest. |
| **Switzerland** |
| The Swiss press ahead with their siting programme, and will be spending 2019 drilling boreholes.    The Swiss Federal government announced in November 2018 that it had approved the third and final stage of the site selection process – deep borehole investigations in the three shortlisted regions.  These investigations will take place over the next 3-4 years, and the results analysed to find the region/s considered to be most suitable and safest for the construction of a deep geological repository.  Nagra, the organisation responsible for developing the repository, is expected to submit a general licence application for the disposal facility by 2024.    Approval of the licence is then not expected until around 2030.  There is still some uncertainty whether a national or local referendum will be required after the federal council and Swiss parliament have approved the general licence.  The repository is expected to be operational around 2040, initially taking low and intermediate level wastes, with higher-activity waste ten years later. |
| **Taiwan** |
| Taiwan updated its geological disposal programme in February 2018, ruling out certain parts of the country on geological grounds, and moving to the next phase of identifying potential areas in which to site a repository. This stage was not expected to be completed until 2028.  The November public referendum result up-ended the Government’s nuclear phase-out policy, and has subsequently brought focus back to bear on the country’s management and disposal of its radioactive waste.  It will take some time in early 2019 for the Government to absorb the referendum result and reassess potential implications for its wider energy strategy – including geological disposal and the interim storage of radioactive waste. It is a possibility that the Taiwanese Government will refocus on and give more impetus to its radioactive waste management and disposal programme. |
| **United Arab Emirates (UAE)** |
| The Government recently announced that radioactive waste will be stored on-site at the UAE’s new nuclear power station for up to 80 years after site closure.  The UAE Government has not yet decided its longer-term radioactive waste management policy, and it is unclear whether such an announcement will happen in 2019. |
| **United Kingdom (UK)** |
| The UK Government announced the re-opening of its geological disposal siting process in a long-awaited, but still surprise announcement just before Christmas 2018.  It is unclear at this stage how the process will proceed. The proposed siting process is complex, and there remains a high-level of public and community unawareness of the issues. The wider UK social and political environment, certainly for the first part of 2019, is also clouded by the uncertainties of Brexit. It is therefore thought unlikely there will be much movement in the GDF siting process until later in the year. |
| **United States of America (USA)** |
| Political uncertainty also shapes the 2019 outlook in the United States, though probably in a more positive fashion from the perspective of the geological disposal programme.  Despite sustained and overwhelming bipartisan support in the House of Representatives, in recent years the US Senate has blocked all attempts to fund the Yucca Mountain programme. However, after the midterm elections, the Republican Party no longer needs to protect the Senator from Nevada. Although the Democrats now control the House of Representatives, there is no reason to suppose bipartisan support will change.  The financial costs of and local political sentiment towards maintaining radioactive waste in interim surface facilities (because the planned disposal repository has not been built) are building pressure for political action/decisions. |
| **Countries with geological disposal programmes, but for which we have insufficient credible or verified information** |
| Belarus : Bulgaria : Estonia : China : Hungary : India : Italy : Latvia : Lithuania : Pakistan : Romania : Russia : Serbia : Slovakia : Ukraine |
| **Countries with no known immediate plans to progress a geological disposal process, either because it is too early in their nuclear programmes, the issue has been deferred, or the underpinning policy and legislative frameworks are under development** |
| Austria : Azerbaijan : Bangladesh : Denmark : Ghana : Greece : Holland : Indonesia : Iran : Israel : Jordan : Kazakhstan : Kenya : Kuwait : Kyrgyzstan : Lebanon : Moldova : Nigeria : Norway : Poland : Portugal : Philippines : Singapore : South Africa : Spain : Tajikistan : Thailand : Turkey : Uganda : Uzbekistan : Vietnam |