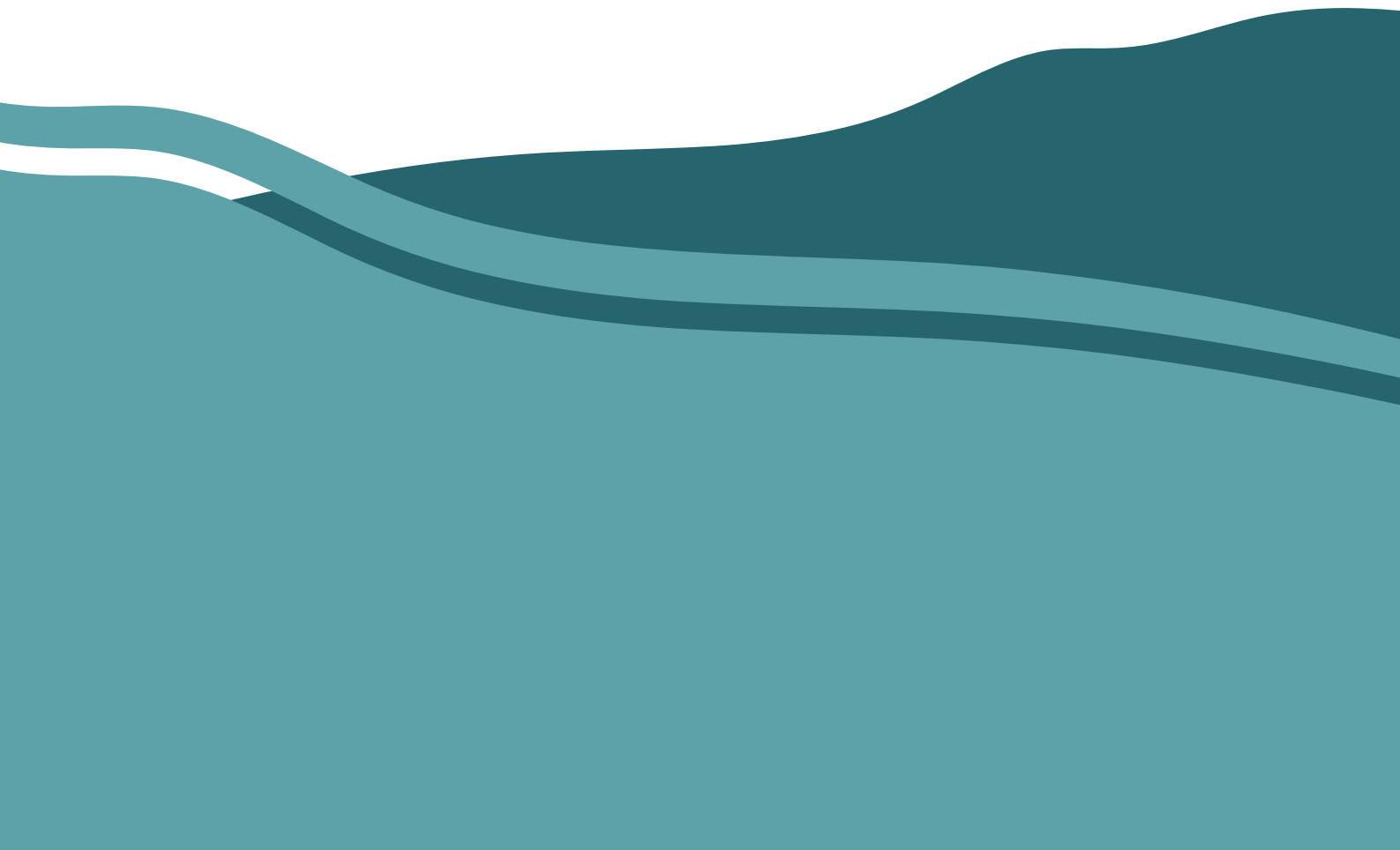




CASTLETOWN LAW

A new regulatory approach for SMRs



Introduction

There is increasing interest globally in the potential role of Small Modular Reactors (SMRs)¹. In the UK, some energy commentators argue that they can replace the large nuclear power plants that have been the reference of civil nuclear energy in the UK since the 1950s. This author would argue that a broad energy mix is the right way forward for the UK and that energy mix can encompass both large nuclear power plants and their smaller cousins, SMRs, both nuclear types complementing the spectrum of low carbon energy sources as we look to move away from reliance on fossil fuels. In passing it is worth making the point that the original thinking behind commercial SMRs was that in many parts of the world they could serve as an alternative to large nuclear power plants for countries that either can't afford or utilize large plants.

Globally, it is estimated that there are over 50 different designs of SMRs that have been developed to date, ranging from as little as 10 MW (for Urenco's U Battery) all the way up to the 440 MW (although initially this was due to be a 220 MW design) proposal from the Rolls Royce-led consortium. The UK is a participant in this international race for the design and production of SMRs and those involved are looking to government support and an appropriate regulatory framework that provides the right stimulus for their development.

There have been some indications recently that UK Government policy is moving in the right direction. The UK Government did stress its commitment to the nuclear sector through the Nuclear Sector deal in June 2018. This document referred to several important targets for nuclear, including reducing costs in new build (by 30%) and decommissioning (by 20%) and introducing a framework to encourage innovative technology, development and deployment of small modular reactors (SMRs). As part of that deal, an award of £56 million was provided towards the development and licensing of advanced modular reactor designs together with a further £32 million award towards advanced manufacturing research.

Further developments took place after the 2018 Nuclear Sector Deal. In May 2019 the government committed the UK to deliver zero net carbon emissions by 2050 in the UK Climate Change Committee and amongst its announcements featured the encouragement of a low-carbon power source such as nuclear power to reduce emissions from electricity generation. However, alongside this message there was recognition that the current costs of large scale-nuclear power are not viable and that an alternative advanced technology may be able to offer cost-effective solutions.

Since then, the UK Government has demonstrated some further support for SMRs. In November 2019 it published a Policy paper on Advanced Nuclear Technologies². A grant of £36 million by way of joint public and private investment was announced to enable the Rolls Royce-led consortium to further develop their design. Rolls Royce has so far received £18 million in funding for Phase 1 of its programme. It is important to point out that Phase 2 is likely to entail costs of a further £500 million to take the programme through to completion of the Generic Design Assessment (GDA) process, a key UK pre-licensing step, which looks to approve the design of a reactor and which we will look at further in this article.

The timing for the introduction of SMRs as an additional energy source for the UK appears to be good for a number of reasons. Firstly, the move towards a low carbon agenda strongly influenced by the goal of the UK to become a net zero emitter by 2050³. Another reason is the increasing importance of a secure energy source

¹ There are a number of definitions for Small Modular Reactors, but the IAEA definition is: "...advanced reactors that produce electricity of up to 300 MW(e) per module."

² See: <https://www.gov.uk/government/publications/advanced-nuclear-technologies/advanced-nuclear-technologies>).

that is also reliable and affordable. There is also the additional argument favouring an energy source that can adapt (what is referred to as “smart” energy) to what is required from society in the 2020’s and beyond. These are a few of the motives that add weight to support SMRs. Against the background of these stimuli in the UK, this article looks to explore what is needed in terms of a government regulatory framework to allow SMRs to advance. Our focus will be on the regulatory and policy challenges for the construction and deployment of SMRs in the UK, with a particular focus on the key stage of Licensing (and Pre-Licensing). However, before analysing the regulatory framework, we will briefly outline some of the advantages in favour of SMRs as an alternative source of energy and some particular features which will help us to understand the requirements and changes needed in regulation to optimize the chances of success.

What are the factors in favour of developing SMRs in the UK?

There are a number of factors which make SMRs an attractive proposition.

Perhaps the best place to start is the issue of cost, particularly given the state of the UK economy at present. Compared to large nuclear the cost of building an SMR is relatively modest. The estimated build cost of an SMR is about £1.5 billion to £2 billion against the £18-£25 billion for large nuclear power plants. Rolls Royce for example estimates that the projected cost of their power station is £1.8 billion. If we also consider the significant cost savings arising from modularization and factory construction, we can immediately see the appeal.

Next there is the significant reduction in build time. The estimate of building an SMR is about 2 years as opposed to the 8-10 years average time for building a large nuclear power plant.

Based on a modular build concept, SMRs are relatively easy to transport due to their size. They can be deployed as and when and to meet energy demand and so are inherently flexible.

There is also the advantage of installation in remote places. They have fewer demanding requirements for sophisticated infrastructure and the relatively small reactors (sometimes referred to as compact reactors) can even operate off-grid.

SMRs can operate on a smaller footprint. The Rolls-Royce proposal for example will cover the equivalent area of 1 ½ football pitches.

In theory they could be built and operated much closer to agglomerations.

SMRs offer significant safety advantages, being easier and quicker to cool passively.

SMRs also offer additional corollary benefits besides electricity production, including: heat for industrial processes such as chemicals production and metals refining, hydrogen production, sea-water desalination and synthetic fuels. Given what we know about the enormous challenges involved in reducing emissions in transport and heat (as opposed to power where progress is generally easier) there are real opportunities in this regard, for example an option to produce electricity by day for power and for transport and/or heat at night.

³ The UK parliament passed legislation in June 2019 requiring the government to reduce the UK’s net emissions of greenhouse gases by 100% relative to 1990 levels by 2050 (see: The Climate Change Act 2008 (2050 Target Amendment) Order 2019 which is available at www.legislation.gov.uk/uksi/2019/1056/contents/made)

In addition, particularly in the UK, SMRs have the potential to breathe some much needed life into the nuclear sector following the decisions in the last few years to close down firstly NuGen's Moorside project followed by the suspension of Horizon's Wylfa project. There is an energy void as the majority of the UK's current nuclear fleet will progressively start coming off the bars in the mid 2020's. A successful SMR product could have major economic upsides in terms of manufacturing and the potential for a supply chain alongside opportunities for the evolution of a new industry becoming a significant export product.

The significance of an inherent safety advantage

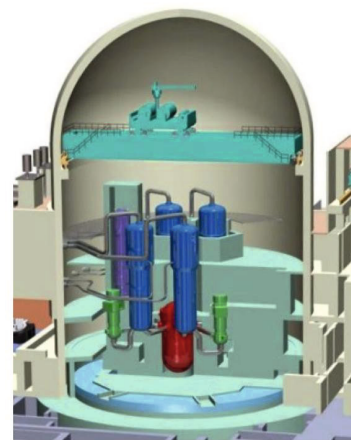
After presenting some of the advantages exposed by proponents of SMRs, it is worth taking a brief look at the most common models currently being developed globally.

One of the models being developed is a water-cooled designed reactor, the main type being integral Pressure Water Reactors (PWRs). In this design the steam generator is integrated into the reactor pressure vessel. The primary circuit is within the Reactor Pressure Vessel (RPV), they operate on a lower core power density, with a larger volume of water in the RPV and they can use standard PWR fuel. NuScale's reactor is a good example of of a water-cooled design:

NuScale's combined containment vessel and reactor system



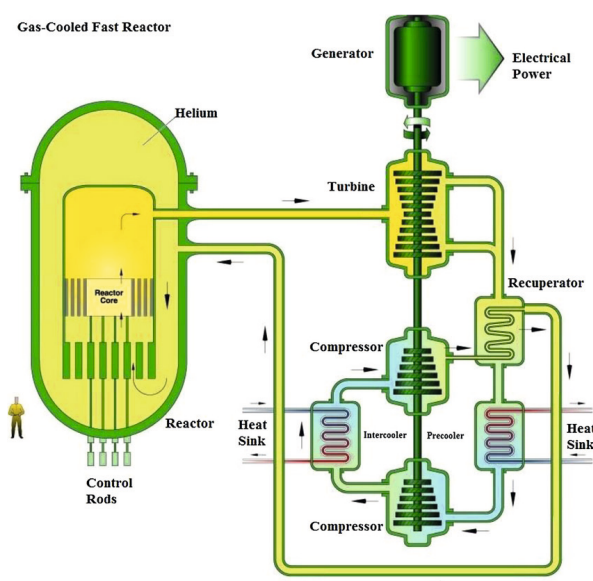
Typical Pressurized-Water Reactor



*Source: NRC

<https://www.forbes.com/sites/jamesconca/2017/03/16/nuscales-small-modular-nuclear-reactor-keeps-moving-forward/>

The Rolls-Royce design is also a light-water based design albeit with a single pressurized water reactor (PWR) and a single steam turbine.

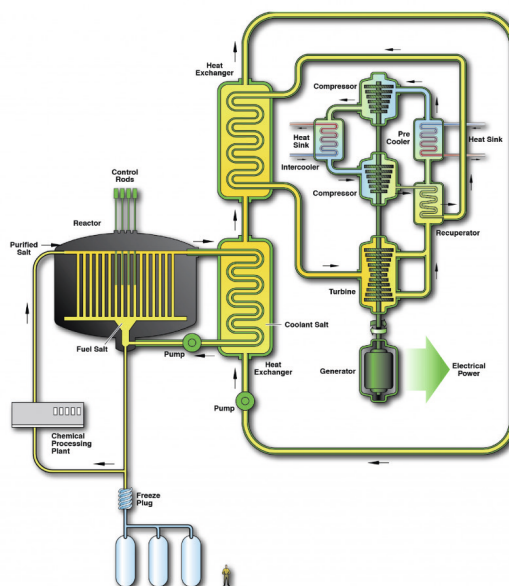


Another model being developed is an SMR which is based on a high temperature gas-cooled-cooled fast neutron spectrum. Both China and Japan have developed SMRs based on this technology although the origins of using this design approach go back to Calderhall (1956) in the UK. The significant safety feature is that with a helium coolant and large mass of graphite moderator (giving high heat capacity) they offer less risk of chemical reactions. They also demonstrate high thermal efficiency. Urenco's U-battery is a good example of this type of design.

https://www.researchgate.net/figure/Gas-cooled-fast-reactor-GFR-or-high-temperature-reactor-HTR-NPP-concept-with-direct_fig3_267581931

Another significant SMR design is the Molten Salt Reactor (MSR). This model uses molten fluoride salts as the primary coolant at low pressure. The molten fluoride salts carry more heat equivalent than the equivalent in water and the molten salts are not damaged by radiation. These type of reactors can use a variety of fuels and they are easy and quick to shut down. An example of this design is Terrestrial Energy's Integral Molten Salt Reactor power plant.

These inherent safety features are typically put forward as to reasons why the current regulatory process for nuclear reactors could be adapted to take account of these factors.



<https://www.energy.gov/ne/articles/3-advanced-reactor-systems-watch-2030>

It is also argued that there are already a number of small reactors around the world in operation (in China and India for example). By way of example, Russia has developed the KLT40S, a floating power unit (based on a PWR design). In addition, Russia has already manufactured six RITM-200 reactors (an integral PWR) with four units already installed in the Sibir and Arktika icebreakers, which went into service in 2020⁴.

The current regulatory processes in the UK and how they might be improved to accommodate SMRs

The traditional approach to life cycle stages for a nuclear power plant, as set out in the IAEA's publication SSG-12, "Licensing Process for Nuclear Installations" is as follows:

- Siting and site evaluation
- Design
- Construction
- Commissioning
- Operation
- Decommissioning
- Release from Regulatory control

It is acknowledged that the specific features of SMRs may challenge this traditional approach to life cycle stages, for example factory manufacturing and testing. The result is that a number of new lifecycle stages may be pertinent for SMRs. See below (with stages in bold showing the potential changes required for SMRs):

- Siting and site evaluation
- Design
- Construction
- **Manufacturing**

⁴ According to the IAEA, there are also currently three industrial demonstration SMRs in an advanced stage of construction: in Argentina (CAREM, an integral PWR), in China (a HTR-PM, a high temperature gas cooled reactor) and again in China a PWR.

- Offsite Commissioning
- Transportation
- Onsite Commissioning
- Operation
- Onsite Decommissioning
- Offsite Decommissioning
- Release from Regulatory control

The stages are rather different from that of large nuclear due to the manufacturing potential and opportunity.

On the face of it, an increase in lifecycle stages would seem to point towards a more time-consuming regulatory approach to adopt and indeed it has been proposed that due to the different elements in a potential SMR programme, additional regulatory interventions may well be required.

By way of example, for Design, it is suggested that because of the likelihood of first-of-a-kind (FOAK) designs, different types of evidence and operating experience will be available. New guidelines and approaches may need to be adopted by Regulatory Agencies and there will be questions over the maturity of design organisations.

In terms of the potential of manufacturing, regulatory oversight for safety-related systems built and assembled in the factory will be required.

There is also an acknowledgment that construction time for SMRs is likely to be much shorter and so it is proposed that a regulatory intervention for construction might include a construction licence. In practice, this suggestion might actually be beneficial to SMRs on the basis that this presents an intermediate step/approval, thus reducing costs and uncertainty as to whether a full site licence would be obtained.

There are some additional considerations relating to SMRs that regulators may have to consider:

- novel designs that need extra regulatory controls;
- operating concepts may be different from traditional reactors as might security arrangements for remote sites,
- the impact of multiple operators on one site,
- the interval of periodic safety reviews.

As a result, regulatory interventions may be pertinent for potential regulatory controls during early operation and major component replacements.

Sequential decommissioning may also be possible, i.e. with some modules still in operation while others are decommissioned.

So potential regulatory interventions might include permits/licences to start decommissioning activities and the establishment of fuel disposal plans.

If we look at those life-cycle stages in more detail it is possible to extract further features that could distinguish a difference in approach from large nuclear. We consider these further below.

⁵ By which we mean a combined construction and operation licence

Site selection

Site Selection is currently determined in the UK via the National Policy Statement for Nuclear (EN-6), published in 2011, in conjunction with the Strategic Site Assessment. EN-6 nominated 8 sites as being potentially suitable for the deployment of new nuclear power stations: Hinkley Point C, Wylfa, Moorside (originally nominated as Sellafield), Sizewell, Bradwell, Oldbury, Hartlepool and Heysham.

The UK Government has actually started the process towards the development of an updated new National Policy Statement applicable to nuclear power plants expected to be deployed after 2025. For SMRs therefore as policy stands they either need to fit under the National Policy Statement criteria (either current or new) and be included on existing sites or alternatively will need to be the beneficiaries of a new approach to allow SMRs on new sites.

It seems clear that the UK Government strongly favours existing Nuclear Decommissioning Authority (NDA)-licensed sites for the deployment of the first SMRs. Certainly, that would in principle avoid the need for a separate round of Siting policy and consultation. There are on the face of it several key contenders, in the north-west of England, for example Sellafield or the Moorside site or feasibly on a number of the Magnox sites, such as Trawsfynydd, or indeed on the Wylfa site on Anglesey in North-Wales.

Whilst there may be good reasons to build SMRs on existing licensed sites (essentially the NDA Sites), given the potentially broadened scope of application for SMRs (i.e. remote locations, oil refineries, large factory sites etc) the UK does have an opportunity here to apply a different approach to its Site Selection. It could for example consider the Early Site Permit approach adopted in the US, which allows an opportunity to build on a site at an early stage and therefore can be dealt with separately from the main licensing process. At the same time it is acknowledged that there may still be requirements to consider the unique features of an SMR, i.e. the smaller output, lower source material, underground siting and how these might affect the size of the site, including environmental impact or emergency planning etc.

Pre-Licensing

Whilst the UK operates a one-step Licensing process (in contrast to the US for example which operates both a one-step⁶ and two-step⁷ process), it does include some fundamental steps that are dealt with outside of licensing. To start with a Justification decision would be required from the UK Government which is in effect a decision to proceed with the approval of a new nuclear power station on the basis that the social, economic or other benefits outweigh the health detriments of exposing the public to ionising radiation.

Another key pre-licensing step relates to a generic approval for a specific design, otherwise known as Generic Design Assessment (GDA). The current GDA process in the UK entails a 4 Step process with a typical timescale of 3-4 years although in some cases this can take closer to 5 years.

The 4 step process is as follows:

⁶ By which we mean a separate construction licence and operating licence

⁷ In practice the Secretary of State for the Department for Business, Energy and Industrial Strategy (BEIS)

- Step 1: Discussions with Requesting Party
- Step 2: Fundamental design, safety and security overview (6-8 months)
- Step 3: Overall design, safety and security review (12 months)
- Step 4: Detailed design, safety and security assessment (c. 28 months)

At the end of the process all being well the Office for Nuclear Regulation (ONR) issues a Design Acceptance Confirmation.

Parallel to that process the Environment Agency (EA) runs its own process over a similar time-period resulting in what is called a Statement of Design Acceptability.

The ONR has now proposed what it describes as a more streamlined process, which consists of 3 steps as opposed to the current 4 -step approach, as follows:

- Step 1: Initiation (12 months)
- Step 2: Fundamental (12 months)
- Step 3: Detailed (24 months)

Allowance is made for a 4th step (with agreement on the time period between the ONR and Requesting Party) to deal with the resolution of any GDA outstanding issues. However, the ONR states that: "...such a period will only be necessary by exception, and should not routinely form part of any GDA." It is noteworthy however that the same overall time-period of 4 years for completion of the whole process is still retained. The shift in emphasis seems to be a rather longer timescale allowed for Step 1 resulting in a tighter period for Steps 2 and 3. The focus is centred on the importance of early engagement between Requesting Parties and the ONR ensuring that the step-wise approach can be maintained according to the proposed timescales.

It remains to be seen whether we are truly looking at a more streamlined process and in this respect it will be particularly interesting to see how the Rolls-Royce led consortium fares with the GDA process which it intends to start next year.

However, an alternative way of looking at design certification for SMRs might be via what is called Module Design Certification, a concept proposed by the Cooperation in Reactor Design Evaluation and Licensing (CORDEL) Working Group, in its report "Facilitating International Licensing of Small Modular Reactors" (August 2015):

The proposal is that a Design Certificate in the case of an SMR would be the certification of the SMR reactor module, including the primary safety systems (otherwise referred to as Module Design Certification). The module along with the safety systems would be standardised during the design phase. Once certified, the module's design (including the primary safety systems) would not need to be reviewed again as a single module. This process then becomes part of the licensing process itself (rather than Pre-Licensing) and could then be internationally valid or transferrable from the country of origin to another country. This transferability though would only be possible if the licensing requirements of the module and its safety systems do not differ in practice from one country to another.

The advantages of this approach are that a module will only need to be certified once and that there is a separation

⁸ See in this respect: Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations

between site approval and design certification. The disadvantage is the limitation imposed to manage design changes over the lifetime of the unit.

Whilst management of design changes over the course of the lifetime of the SMR would need to be managed appropriately, one obvious advantage is that by obtaining a Module Design Certification that is transferrable to other countries, this ensures a more cost-effective means of deployment.

Licensing

If we consider the proposed benefits and opportunities in developing an SMR product line that functions well for the UK but also is fully exportable, the key regulatory steps need to be as streamlined, efficient and transparent as possible. The UK approach to licensing at present functions on the basis of an “all or nothing” one-step process. The licence covers construction, operation and decommissioning. Alongside this a number of “hard” hold points are set out, pre-defined in regulations and requiring formal consent from the regulator together with “control points” which are proposed by the applicant and included within the licence.

For a number of years, initially driven by work on large nuclear power plants, there have been various initiatives looking at opportunities to standardise and harmonise Licensing. In this respect, it is interesting to look at the work of the Cooperation in Reactor Design Evaluation and Licensing (CORDEL) Working Group. This is a Working Group established by the World Nuclear Association (WNA) in January 2007 with the aim of stimulating a dialogue between the nuclear industry and nuclear regulators on the benefits and means of achieving an international standardisation of reactors designs.

The WNA’s Licensing and Permitting Task Force (in its report “Licensing and Project Development of New Nuclear Plants”, 2013), jointly sponsored by CORDEL and the WNA’s Nuclear Law and Contracting Working Group, reported back on the findings of a survey sent to WNA members in December 2011. Their findings stressed the importance of a licensing system that is “predictable and stable” with a particular emphasis on the pre-licensing stages (i.e. design approval and site selection.) They made the case for “international harmonization of safety requirements” and “standardisation of reactor designs.” Indeed, the EU has to a certain extent picked up the mantle here.⁸

With reference to that report, CORDEL’s Small Modular Reactor Ad-hoc Group (SMRAG), in its report “Facilitating International Licensing of Small Modular Reactors” (August 2015), stressed the importance of working towards enhanced harmonisation which could only assist the development of SMRs. The group proposed a new approach for Licensing, stressing the unique features of SMRs which makes them suitable for a difference in approach, as follows:

- small power and compact architecture requiring less reliance on active safety systems;
- an opportunity for modularity of fabrication as a result of the compact architecture;
- lower power requirements leading to reduction of the source term as well as a smaller radioactive inventory;
- the potential for underground or underwater location of the reactor unit providing more protection from natural hazards;
- an increased scope for having multiple units on the same site;
- lower requirements for access to cooling water (thereby improving suitability for remote regions and for specific applications such as desalination;

- the ability to remove the reactor module or in-situ decommissioning at the end of the lifetime of the reactor.

As mentioned above, with the new approach, rather than treating design certification as part of Pre-Licensing, the design certification step would be applied to the reactor module and primary safety system at the same time and on a once and for all basis. The objective would be to achieve an internationally transferrable reactor module design certification which would enable the construction and operation of multiple, identical SMRs on the same site and thereby eliminating the need to review and approve each reactor module separately.

Further studies on this have referred to the example of certification in the aviation industry which means that once an aircraft has been certified by one authority that certificate is then validated by another authority.

Another proposition is the use of a Master Facility Licence. Modifications that only relate to a reactor module could be designated as such and therefore could be reviewed as part of the design certification (or design change management programme). Changes under the Master Facility Licence would then concentrate on safety issues that are common to the whole project (i.e. external hazards and common cause failures). It is proposed that a Master Facility Licence is issued by the regulatory body granting authorization to perform specified activities.

This again would mean a more straightforward licensing process and would facilitate approval for operation. In addition, for multiple modules a SMR plant would only need to go through the module licensing process once.

It is suggested that the goal-setting approach currently adopted by the ONR (as opposed to the prescriptive process by other countries, for example the US) would make the licensing process more flexible to take account of different SMR features, such as passive safety systems. The main advantage of a goal-setting approach is that it allows greater scope for innovation and works well when the regulated enterprise has significant expertise in the area.

It is also suggested that design change management will be an important element in SMR licensing and so this needs to be planned in the early phase of the licensing preparation. A well-developed knowledge management process will be essential.

In summary the proposed approach in SMRAG's Report should minimize the licensing risk and allow SMRs to be licensed as standard designs globally. The idea is to limit the scope of the design certification and separate it from site-specific approvals and operational requirements. The impact should be to reduce the differences between countries' licensing practices. An added benefit would be supporting the development of SMRs in new countries.

Greater efficiencies should result, reduced costs and the enhancement of safety via this sharing approach.

Safety Standards

Alongside this, the IAEA has been working on Safety Standards specific to SMRs. The current view is that the IAEA safety standards can generally still be applied to SMRs but at the same time they have published (in a series of interim reports) some specific recommendations on safety implications that arise from SMRs. There is recognition that SMRs require a more flexible framework but at the same time there are specific safety

considerations arising from the modularity concept. The concept of shared systems for example may introduce vulnerabilities in the design along with dependencies on the other modules. There are also likely to be challenges in terms of inspection and maintenance compliance with SMRs being potentially deployed widely around the world, in countries with different capabilities and regulator capacity and also in remote locations. This is an area that requires more work and ideally the finalising of a set of Safety Standards that can be applied to SMRs uniquely although we appear to be some way from that at present.

Nuclear liability

There are a whole series of questions raised under this topic. Is the current nuclear liability regime able to accommodate the design, construction and deployment of SMRs, in particular in relation to the transport requirements that will arise in a modular concept of factory-build and supply chain interactions? What levels of liability should apply to different designs/reactors? Will nuclear insurance be available? How will it work if SMRs are applied in a series of modules? Where do liability and maintenance obligations lie in relation to SMRs that are exported?

Planning

A Development Consent Order (DCO) is the principal planning consent process that currently applies in the UK for large infrastructure projects (otherwise known as Nationally Significant Infrastructure Projects), including nuclear power plants, and this has become a significant and costly regulatory hurdle to overcome.

If one looks at recent examples of applications for DCO's, it is easy to pick holes in the current process. These are lengthy (typically 18-24 months), complicated and very expensive processes for developers. Developers are also frequently delayed by Habitats Regulations issues and also hindered by onerous conditions. One also has to questions whether the public fully engages in the process and whether they are able to contribute meaningfully to a process that typically involves volumes and volumes of complex, technical expert evidence. It seems clear that this process needs serious reform and we have to ask what scope there is for public involvement in a much more consolidated process (i.e. including Environmental Impact Assessment, Environmental permits and the Licensing Process together).

In Conclusion

As we watch on as designs from Canada and the US (NuScale's in particular) steal a significant march in the race to deployment of SMRs, it does seem as though the UK (with its target of deployment in the 2030's) is some way behind its rivals .

SMR development and deployment in the UK will only happen if the regulatory and political landscapes are sufficiently favourable. Funding is all well and good and of course essential, but the UK government also needs to state its case loud and clear that it is fully behind SMRs. That in turn would most likely boost the public perception on new nuclear and SMRs in particular. As we stand today the UK public is largely in support of

⁹ According to a 2020 survey, support for the use of nuclear energy for electricity generation in the UK outweighed opposition. See: <https://www.statista.com/statistics/426157/united-kingdom-uk-attitudes-towards-nuclear-energy/>

nuclear⁹. If the message is delivered properly and consistently, stressing the drivers for a low carbon energy source that can produce safe, reliable, flexible and affordable energy, that in itself can provide a great platform for developers and investors to see a route through to SMR production and deployment.

In that respect, the UK Government's published response from the Regulated Asset Base Model Consultation and its long-promised Energy White Paper are eagerly awaited to point the way forward and help to smooth the path for developers and investors alike.

Whilst arguments can be raised to smooth a regulatory path in the UK for SMRs there are still a number of outstanding issues to deal with. For example, how will Emergency preparedness measures be adapted in relation to SMRs sited close to populations as opposed to those on more remote sites? In terms of nuclear liability, how will the current regime apply and indeed is it fit for purpose? These are issues that need to be dealt with now.

One thing seems clear to this author. In a post-Covid world, where the UK economy faces stress, supporting an SMR programme where the technology is well-tested represents very little in the way of risk. Whilst not impugning on other future technologies, such as fusion and hydrogen, we understand fission. It is a technology that we have been using for over 60 years. With the right support it is perfectly feasible to envisage the deployment of SMRs in the UK by 2030 and we should take the necessary steps now. Looking to improve the regulatory landscape at the same time must be a priority to give confidence to investors and developers alike. When we factor in the opportunities and also challenges for the UK as it moves out of the EU, added to the challenge to reduce emissions from all sectors to comply with challenging climate change targets, the opportunity to develop SMRs has to be taken now. This represents an opportunity not only for the UK nuclear sector but for UK industry more widely as supply chain opportunities would also be created.

A number of factors determine whether SMRs can be competitive, including design simplification, passive safety systems, standardisation, mass production potential, short construction periods and serial construction. Political support plays a key role but as we have also highlighted in this article a new look at the current regulatory framework and a shift in direction is also required to support SMRs.



Simon Stuttaford

simon.stuttaford@castletownlaw.com

t: +44 (0) 7720 947 789



CASTLETOWN LAW