

Criteria related to nuclear safety and security

- 2.1 The Government believes that the UK has an effective and robust regulatory framework. Within the strategic criteria, the Government has aligned the proposed safety criteria to relevant international standards and best practice. The strategic criteria will consider those aspects of siting that can, at a national level, avoid hazards to nuclear facilities and to public health. This includes reducing accident risk as a result of external hazards and utilising an established approach to identifying safe distances between new nuclear power stations and existing populations. This helps to avoid risks to human health¹.
- 2.2 The UK has strict independent regimes covering safety and environmental protection for nuclear power. In the UK, the ONR regulates the safety and security of civil nuclear facilities. Any new nuclear power station will be subject to safety licensing conditions and the operator will have to comply with the safety, security and environmental conditions set by the regulators. The strategic criteria are not intended to replace the conditions of the nuclear site licence or the powers of the ONR. Sites considered to be potentially suitable in the NPS will need to undergo much more detailed assessments before development consent can be granted and construction can begin.

Flooding, tsunami and storm surge

Discretionary

- 2.3 Sites nominated in this process may be considered unsuitable, if at a strategic level nominators are not able to:
- confirm that they can protect the site against flood-risk throughout the lifetime of the site, including the potential effects of climate change, without increasing flood risk elsewhere;
 - outline the countermeasures they would take to protect the site and its occupants from flood risk, ~~as-so~~ far as **is reasonably practicable**²;
 - take into account the wider impacts of their flood protection countermeasures on areas surrounding potential power station sites; and
 - Outline how they will meet the requirements of the Sequential Test for sites in England (and ~~equivalent the justification tests~~ set out in **section 6 of TAN 15 the planning policy for sites in Wales**).

- 2.4 Based on advice from the Environment Agency, Natural Resources

¹ The criteria under the nuclear safety and security section will also be assessed from an environmental perspective by the Environment Agency, Natural Resources Wales and any other relevant regulators and statutory bodies.

² **This is a legal requirement under the Health and Safety at Work etc. Act 1974.**

Wales (“NRW”) and ONR, and using relevant information including the Environment Agency flood maps in England and Development Advice Maps in Wales, Government will assess nominated sites at a strategic level and will apply the relevant policy tests as set out in the relevant planning framework at that time (currently National Planning Policy Framework (“NPPF³”) in England and Planning Policy Wales⁴ and Technical Advice Note (“TAN”) 15⁵ for Wales) where practical.

Information from nominators/points to note:

2.5 Nominators will be expected to outline:

- a. the protection measures they believe would be appropriate to protect the site against flooding and confirmation that these are adaptable over the lifetime of the site to accommodate uncertainties in future projections of the effect of climate change;
- b. whether the protection measures would affect other designated ecological areas;
- c. the assumptions that have been made about off-site flood protection and water management and, in particular, the reliance on flood protection measures which are in the control of other parties, such as neighbouring landowners or government bodies;
- d. the potential for flooding to impede access to the site in respect of both normal operations and emergency services;
- e. whether the development of a new nuclear station on the site (including any likely mitigation measures) is likely to increase flood risk elsewhere, and if so potential mitigation to the increased flood risk; and
- f. the predicted effects of the development and any flood protection measures on coastal and fluvial processes and subsequent impacts on communities and the environment.

2.6 For nominations in England, nominators will be expected to use the relevant flood maps⁶ publicly available information on the Environment Agency website to provide a strategic overview of flood risk for the site. This may include the flood risk from rivers or the sea, surface water, and reservoir maps (all part of the Long Term Risk of Flooding⁷) and any relevant Strategic Flood Risk Assessments. For the purpose of providing

³ The NPPF does not contain specific policies for NSIPs but is a relevant and important document when making planning decisions.

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁵ <http://gov.wales/topics/planning/policy/tans/tan15/?lang=en>

⁶ Flood Map for Planning (rivers and the sea) and the Long Term Risk of Flooding Map

⁷ <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

evidence against the Sequential and Exception Tests (see paragraph 2.9.2.24), nominators should refer to the flood map for planning⁸.

2.6

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2.7 Nominators in Wales should also provide the publicly available flood maps for the site at that time, and copies of the development advice map published by the Welsh Government, both of which are currently these available on the NRW website and copies of the development advice map published by the Welsh Government.

2.8 Consideration of flooding and storm surges as discretionary criteria does not take away the responsibility of PINS, when considering a specific application for development consent, to consider risks based on detailed site-specific plans and mitigation measures and consult relevant regulators as detailed in 2.19. In doing this, the Government expects PINS to take into account any statements made in the new NPS and Government planning policy on flood risk and development at that time, currently Section 10 of the NPPF and supporting Planning Practice Guidance for England and Planning Policy Wales and TAN 15 for Wales.

2.9 Planning policy in England currently requires a Sequential Test (paragraph 101 of the NPPF) will need to be carried out for all sites in England seeking Development Consent (and the equivalent tests in TAN 15 for sites in Wales). This requires developments to be located in areas with the lowest probability of flooding, unless there is no reasonable alternative appropriate for the proposed development. Therefore, nominators should explain why it is reasonable to conclude that the nominated site is likely to pass this test. e relevant tests in the planning framework applicable at that time (currently, the Sequential Test in NPPF paragraph 101 for sites in England and the tests in TAN 15 for Wales). This requires developments to be located in areas with the lowest probability of flooding, unless there is no reasonable alternative appropriate for the proposed development. If the nominated site is in an area with a high probability of flooding then the Exception Test (paragraph 102 of the NPPF) is will also be required. This requires demonstration that the development is needed and that the flood risk can be managed. In these cases, nominators should also explain why it is reasonable to conclude that the nominated site is likely to pass the relevant Exception Test in the planning framework applicable at that time (currently, the Exception Test in NPPF paragraph 102 for sites in England). (Note the Exception Test will be required in the site specific Development Consent Order application once designs have been progressed further).

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2.9.2.10 For sites in Wales, TAN 15 provides guidance on the tests that are expected as part of any Planning Application. These are the justification and acceptability of consequences tests outlined in sections 6 and 7 of TAN 15 respectively. Nominators of Welsh sites should explain

⁸ <https://flood-map-for-planning.service.gov.uk/>

why it is reasonable to conclude that the nominated site is likely to pass these tests. Welsh planning policy also sets a general expectation that developments in areas of high flood risk should be avoided. Therefore, where a nominated site includes land designated as flood zone C2, nominators should provide additional justification as to why this land is required.

2.102.11 Nominators should consider the most up to date UK climate projections and guidance as available at nomination. Currently this is UK Climate Projections 2009 (UKCP09) and associated guidance⁹ but the Government has announced the UK Climate Projections 2018 (UKCP18) project to upgrade the UK Climate Projections. The capacity of new nuclear power stations to withstand the potential impacts of climate change will be reviewed in more detail as part of any site licensing process and as part of the Flood Risk Assessment (for Wales, a Flood Consequence Assessment) that applicants will undertake in conjunction with any development consent applications to PINS. Nominators should identify the potential effects of the credible maximum scenario in the most recent projections of marine and coastal flooding. Nominators must then be able to demonstrate that they could achieve further measures for flood management at the site in the future, if future climate change predictions show they are necessary.

Tsunami and storm surges

2.112.12 The UK's regulatory practice requires the tsunami risk to be included in the design-basis risk consideration for a nuclear facility.

2.122.13 For all sites on or near the coast, we will expect nominators to indicate how their site can be protected against the risks of tsunami and storm surges, including the potential effects of climate change, for the duration of the life of the station. In particular, nominators should outline:

- a. the coastal protection measures that they believe would be appropriate to protect the site against these risks;
- b. the dependencies on coastal protection measures which may currently be out of the nominator's control; and
- c. the potential for these hazards to impede access and egress to/from the site in respect of both normal operations and emergency services.

Coastal processes

Discretionary

⁹ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances-and>
<https://www.gov.uk/government/publications/adapting-to-climate-change-for-risk-management-authorities-and>
<http://gov.wales/topics/planning/policy/policyclarification/letters/2016/cl-03-16-climate-change-allowances-for-planning-purposes/?lang=en>

~~2.132.14~~ The strategic criteria will consider whether it is reasonable to conclude, at a strategic level, that the nominated site can be protected against coastal erosion and other landscape change scenarios, including the potential effects of climate change, for the lifetime of the station, taking into account possible countermeasures and mitigating actions. It will also consider, at a strategic level, effects that a development of a nominated site could have on coastal processes and communities elsewhere.

~~2.142.15~~ Government will assess nominated sites at a strategic level against the most up to date UK climate projections as available at nomination. Currently this is UKCP09. Government will also assess nominations against the planning framework in force at that time (currently, NPPF for England and TAN 15 for Wales). Environment Agency and NRW flood and coastal erosion maps will also be used.

~~2.152.16~~ An assessment will also be based on the advice of the Environment Agency, and NRW for sites in Wales, on the risk of coastal erosion at sites, of historical coastal events in the region and the most current Shoreline Management Plan policy. For any nominated sites which are adjacent to existing licensed sites, there will also be a considerable wealth of information on the prevailing coastal performance and local management arrangements which will inform the judgements made. Estimates for the coastal erosion in the vicinity of nominated sites will also be considered for their reasonableness. ~~In Wales, advice will be sought from NRW and.~~

Information from nominators/points to note:

~~2.162.17~~ Nominators should outline:

- a. the countermeasures that could be taken to protect any new nuclear power station within the nominated site from the effects of coastal erosion or other landscape change scenarios, and the likely impact of these on flood risk and coastal processes elsewhere;
- b. the dependencies on coastal protection measures that may be under the control of other parties, such as neighbouring landowners or government bodies; and
- ~~c.~~ the potential for these risks to impede access and egress to/from the site in respect of both normal operations and emergency services;
- ~~c.d.~~ the potential impacts of site development on coastal processes and existing coastal management arrangements, and possible measures that could be taken to limit these impacts;

~~2.172.18~~ The practicability of the proposed mitigation measures will be reviewed along with the implications for areas beyond the immediate site

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boundary where reliance was placed on defences potentially without the control of the site.

2.182.19 In addressing these points, or otherwise, nominators should demonstrate that they have taken account of:

- a. the wider impacts of any coastal protection countermeasures on areas surrounding the development of a new nuclear power station in particular any designated habitats;
- b. interaction with the local and regional plans for coastal change management and protection and watercourse management; and
- c. any reliance on third party schemes for protection that is being assumed.

Proximity to major hazard sites and major hazard pipelines

Discretionary

2.20 Based on the advice of the Health and Safety Executive ("HSE"), the ONR and the Environment Agency or NRW, Government will assess a nominated site to ensure it could be protected against potential risk arising from proximity to major hazard sites throughout its lifetime, taking into account suitable counter measures and mitigating actions.

2.19

2.202.21 The assessment will give regard to major hazard sites and pipelines as subject to the most current regulations and practice at the time of nomination. Currently these are establishments subject to the Control of Major Accidents and Hazards ("COMAH") Regulations 2015 and sites in possession of Hazardous Substance Consent¹⁰ for which HSE and the Environment Agency are statutory consultees. HSE sets consultation distances ("CD") around major hazard sites and major hazard pipelines and then must be consulted on certain proposed developments within that zone. HSE has a methodology for assessing development near to such sites, this gives guidance to planning authorities in considering the suitability of domestic, institutional and industrial developments within the CD.¹¹ Planning Authorities considering a development within the CD of a major hazard site or major hazard pipeline must consult HSE using the Planning Advice Web App.

2.212.22 A nominated site may be unsuitable for the development of new nuclear power stations if it is within the CD of an existing or proposed hazardous facility or major accident hazard pipeline. Government will also consider any combined effects at local level. This will be a

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¹⁰ The Planning (Hazardous Substances) Regulations 2015 and The Planning (Hazardous Substances) (Wales) Regulations 2015

¹¹ <http://www.hse.gov.uk/landuseplanning/methodology.pdf>

discretionary criterion and evidence of how suitable countermeasures could mitigate the risks from this will be taken into account in reaching any such decisions.

2.22.23 A nominated site may be unsuitable if it is found that the risks (alone/in combination with other relevant sites in the area) would pose a serious risk to human health and the environment.

2.23.24 Existing nuclear power stations or sites undergoing decommissioning, may be major hazard sites, depending on the nature of the existing site, including the presence of hazardous materials. Whether a site requires hazardous substances consent is a matter for the site operator to agree with the Hazardous Substances Authority ("HSA"). Where it has been determined by the operator and the HSA that the site is indeed a major hazard site, HSE will determine the level of consultation zone that may be appropriate. This will depend on the nature of the existing site, including the presence of hazardous materials. It is unlikely that such proximity will rule out a nominated site from further consideration, provided that appropriate mitigation measures can be put in place. Assessment could also include strategic consideration of any potential security implications to existing nuclear facilities¹². The Government will draw on advice from HSE, Environment Agency and ONR in considering the level of hazard and whether, recognising that these criteria are at a strategic level, suitable counter measures should be able to mitigate any risk.

Information from nominators/points to note:

2.24.25 Nominators will not be requested to provide any further information, beyond the description and location of the site, to support the consideration of this discretionary criterion. They will, however, be encouraged to check the proximity of hazardous facilities to any nominated site, which are available in the public domain and may wish to put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Proximity to civil aircraft movements

Discretionary

2.25.26 Issues related to the proximity of proposed sites for new nuclear power stations to civil aircraft movements will be considered as discretionary criteria. An assessment will consider whether it is reasonable to conclude that:

¹² Although more likely this will be a matter for more detailed local consideration at any future licensing stage

- a. any likely nuclear power station development within the nominated site boundary can be protected against risks from civil aircraft movement¹³; and
- b. the effects on air traffic and aerodromes can potentially be mitigated.

~~2.262.27~~ 2.272.27 Nominators will be asked to assess proximity to Public Safety Zones (“PSZ”)¹⁴. Inside these zones, current planning guidance, issued to local planning authorities by the Department for Transport, makes a general presumption against new developments¹⁵. The guidance would probably rule out approval of a new nuclear site within a PSZ. Aerodrome safeguarding plans could be used to define limits for the construction of nuclear power stations in the environs of an aerodrome as planning applications must meet the aerodrome safeguarding requirements. Any planning applications are also subject to an independent collision risk assessment.

~~2.272.28~~ 2.282.28 Unlicensed aerodromes that have not lodged aerodrome safeguarding plans will be flagged as an issue for detailed local consideration by PINS and any relevant regulators.

~~2.282.29~~ 2.292.29 Nominators should have regard to the fact that a number of aerodromes in the UK have surrounding areas where traffic is controlled into and out of that aerodrome and potentially others in the immediate area. It may be that a site for a proposed nuclear power station is in an area of high density flying because of the way aircraft are directed into and out of the surrounding aerodromes. Such a location would increase the risk to the nuclear power station from an aircraft crash. Furthermore, air exclusion zones around nuclear power stations would affect the safe operations of the aerodrome. Air exclusions zones are those established by the [Air Navigation \(Restriction of Flying\) \(Nuclear Installations\) Regulations 2016](#)~~Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2007~~, or the most recent set of regulations.

Information from nominators/points to note:

~~2.292.30~~ 2.302.30 The Government recognises that not all the information for this criterion will be in the public domain and therefore it will not be reasonable to require nominators to provide this themselves; rather the assessment of this criteria will be undertaken by the ONR and the Civil Aviation Authority (“CAA”) for the area within the site provided by the

¹³ This may involve a consideration of the application of the [Air Navigation \(Restriction of Flying\) \(Nuclear Installations\) Regulations 2016](#)~~Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2007~~, or more recent regulations, to the nominated site.

¹⁴ or the equivalent zones in place at the time of nomination

¹⁵ Department for Transport (July 2002), Control of Development in Airport Public Safety Zones <http://www.dft.gov.uk/pgr/aviation/safety/controlofdevelopmentinairpor2984> or more recent guidance.

nominator.

2.302.31 Nominators will not need to provide any further information, beyond the description and location of the site, to support the consideration of this discretionary criterion. However, they will be encouraged to check the proximity of civil aircraft movements to the nominated site, where information is available in the public domain. This information can be obtained from the CAA and UK Aeronautical Information Service. Nominators may also put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Demographics

Exclusionary

2.312.32 The Government has a longstanding policy regarding local demographics which would limit the radiological consequences to the public in the unlikely event of an accident involving the spread of radioactive materials beyond the site boundary. The ONR administers the Government's policy on the control of population around licensed nuclear sites.

2.322.33 Sites will be assessed against the "semi-urban" demographic criterion that was used to assess the sites listed in EN-6¹⁶. This is assessed as follows:

Distance (km)	Weighting Factor	Cumulative Weighted Population Criteria for the semi-urban demographics
Population all around site		
0-2	32.0	290,000
2-3	15.0	520,000
3-5	7.7	870,000
5-8	4.0	1,300,000
Population in 30 deg. Sector		
0-2	26.0	96,000
2-3	12.0	170,000
3-5	5.6	290,000
5-8	2.8	430,000

2.34 These values provide an example of the demographics criterion but are not intended to fully capture the complexity of the calculation. A step-by-

¹⁶ For details of the ONR's implementation of the Government's demographic siting policy and the subsequent control of development around nuclear sites see: ONR is currently updating the guidance on implementation of demographic siting policy. For an outline of ONR's land use planning work see: <http://www.hse.gov.uk/aboutus/meetings/iacs/nusac/030708/p12-sittingpaper.pdf> and www.onr.org.uk/land-use-planning.htm <http://www.hse.gov.uk/landuseplanning/nuclear.htm>

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<http://www.hse.gov.uk/landuseplanning/nuclear.htm> has been superseded by www.onr.org.uk/land-use-planning.htm in April 2013.

Please remove the references to: <http://www.hse.gov.uk/aboutus/meetings/iacs/nusac/030708/p12-sittingpaper.pdf> and <http://www.hse.gov.uk/landuseplanning/land-use-planning.pdf> as they do not present the current policy.

We are currently drafting a new ONR guide to revise and replace reference 17, in which we will provide details of the ONR's implementation of the Government's demographic siting policy and the subsequent control of development around nuclear sites (noting that the value for all around the site within the revised guidance will require confirmation or amendment by BEIS).

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step example of how the demographics criterion is applied is available on the HSE website¹⁷.

2.332.35 Given the complexity of this calculation it is not reasonable to expect nominators to carry it out themselves; rather the calculations will be undertaken by the ONR for the area of the nominated site.

2.342.36 ONR consider that modern reactor designs which are consistent with IAEA safety expectations and the ONR's Safety Assessment Principles should present a sufficiently low level of public risk to allow the application of the semi-urban criterion. The demonstration of the acceptability of that public risk would be confirmed as part of ONR's detailed assessment of a site licence application based on a specific design.

2.352.37 Where areas of a nominated site might exceed the cumulative weighted population criteria for the semi-urban demographics further advice from the regulators will be considered to see whether the site remains viable. Such flexibility is possible as regulators will need to be satisfied that only those parts of the power station which contribute a radiological hazard can be located in areas which do not exceed the semi-urban criterion during the licensing process. If the area that exceeded the semi-urban criterion would be required for siting those elements which have a direct potential to cause radiological hazard, the site would be excluded.

2.362.38 Areas that meet the semi-urban criteria will, for the purposes of the strategic criteria, be considered suitable, subject to meeting all other relevant criteria. It should be noted that although a site may meet the semi-urban criterion as part of the strategic criteria, this does not guarantee that the demographic features of a site will be acceptable to the ONR following its detailed regulatory assessment at the time of considering a nuclear site licence application. It is therefore possible that a site which meets the proposed strategic demographic criteria could be rejected at a later stage in the development process.

Information from nominators/points to note:

2.372.39 Nominators will not be asked to provide any further information, beyond the description and location of the site, to support the assessment of this exclusionary criterion. However, for new nominations, they will be encouraged to consider demographic and proximity to population issues when deciding where to locate the site that they nominate.

Discretionary

¹⁷ <http://www.hse.gov.uk/landuseplanning/land-use-planning.pdf>

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2.40 Safety is the Government's overriding priority and emergency planning, which is closely linked with demographics, will be a critically important consideration at the site licensing and development consent stages. Therefore, based on their experience as nuclear operators, we would expect nominators to give a high-level description of the practicality of developing appropriate emergency planning arrangements at any site that they nominate for the strategic criteria.

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2.382.41 Given the potential for a long development time between designation of the NPS and deployment of a listed nuclear power station, there is a risk that local developments could impact the strategic suitability of a site. As part of the discretionary assessment for any site which passes the exclusionary demographics assessment, Government will consider the effects of local population growth up to 2035 in accordance with local authority plans or historical average growth rates where applicable and what effect this could have on the potential suitability of the site.

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Proximity to military facilities

Exclusionary

2.392.42 Based on the advice of the Ministry of Defence and the ONR, Government will assess any nominated sites to:

- a. seek to avoid the external hazards to nuclear power station safety that could be created by neighbouring military activities; and
- b. ensure that the capabilities of the armed forces to carry out essential training and operations are not adversely affected by the siting of new nuclear power stations.

2.402.43 Sites will be rejected (in whole or in part) if the site is:

- a. within certain Military Low Flying Tactical Training Areas (currently Tactical Training Areas 7T, 20T and 14T) and Air Weapon Ranges (currently LFA13);
- b. within the air space surrounding a Ministry of Defence aerodrome or an aerodrome used for defence activities contained within a designated Military Air Traffic Zone (MATZ)¹⁸;
- c. within the air space surrounding a Ministry of Defence aerodrome or an aerodrome used for defence activities contained within a designated Air Traffic Zone (ATZ)¹⁹;

¹⁸ Or an equivalent designation being used in future.

¹⁹ Or an equivalent designation being used in future.

- d. within or affects the use of the areas used for live firing or other military training activities; and
- e. within the explosive safeguarding zones surrounding Ministry of Defence explosive storage facilities.

Discretionary

2.442.44 More broadly, any nominated sites will be assessed against their proximity to other Ministry of Defence assets or activities and whether it is reasonable to conclude, at a strategic level, that such proximity should or should not rule out the site for consideration for a new nuclear power station. Consideration will be given to whether there is evidence that impacts could potentially be adequately mitigated without compromising the Ministry of Defence facility or the nuclear installation.

2.422.45 This will include consideration of whether any likely nuclear power station development within the nominated site boundary would adversely affect the capabilities of the armed forces to carry out essential training and operations throughout its lifetime and whether it could be protected against the risk of external hazards created by neighbouring military activities. Ministry of Defence assets or activities to be considered under this criterion include (but are not limited to) technical sites and transmitters, offshore danger areas and nuclear facilities (including ports used by military vessels).

Information from nominators/points to note:

2.432.46 No specific information will be required from nominators about the proximity of the site to military activities as it will be assessed by the Ministry of Defence on the basis of the description of the site and nominated site boundary as outlined in the site nomination.

2.442.47 However, if a nominator is aware that the site is in close proximity to or may affect any other Ministry of Defence assets or activities, which are in the public domain and not covered in the exclusionary list above, the Government will expect nominators to indicate why, at a strategic level, this proximity should not rule out the site for consideration for a new nuclear power station. Nominators may wish to put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Criteria related to environmental protection

2.452.48 Protecting the natural environment, areas of amenity, cultural heritage and landscape are important considerations when developing new nuclear power stations. We expect developers to avoid, minimise or mitigate any impacts and, where possible, to enhance the environment.

2.462.49 The high-level environmental effects of nuclear power stations, during construction, operation or decommissioning can include adverse impacts upon:

- hydrology and hydrogeology;
- landscape;
- historic environment;
- air quality and climate;
- soils, geology and geomorphology;
- surface water quality and drainage;
- ecology – estuarine and marine, terrestrial and freshwater;
- coastal ecology and geomorphology; and
- groundwater.

2.472.50 At the strategic level, it is inappropriate to provide siting criteria for many of these issues as they are more appropriately addressed at the development consent stage when Environmental Impact Assessments (“EIA”) are undertaken. The focus of the siting criteria is on nationally and internationally designated features, rather than on-design or site-specific matters. The strategic criteria will, through the application of the following criteria, seek to ensure that developers minimise the adverse impact of new nuclear power stations on the UK’s most environmentally sensitive features.

Internationally Designated Sites of Ecological Importance

Discretionary

2.482.51 The Government’s view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in areas unlikely to cause an adverse effect on the integrity of any internationally designated sites²⁰ of ecological importance. However, proximity to internationally designated sites should not rule out nominated sites from consideration and where there is potential for an adverse effect the nominator will need to set out what they are able to do to avoid, minimise or mitigate these effects and to respect the integrity of these sites.

2.492.52 Habitats Regulations Assessment and Appraisal of Sustainability reports will be undertaken on any nominated site at a strategic level to assess whether European Sites (defined below) would be directly or indirectly affected by the deployment of a new nuclear power station on the site; the likely significant effect and in light of appropriate assessment, whether it would be reasonable to conclude, at a strategic level, that the plan would or would not have an adverse effect on the integrity of designated sites²¹ (including a consideration of whether it should be possible to avoid or mitigate any effects) in line with the standards set by the Habitats Directive and the conservation objectives

²⁰ This includes both candidate and proposed sites

²¹ This includes both candidate and proposed sites

for the sites concerned.

2.502.53 European Sites, or Natura 2000 sites²², are a network of internationally important sites designated for their ecological status²³ to protect habitats and species of European nature conservation importance. They comprise of Special Protection Areas²⁴ (“SPAs”), Special Areas of Conservation (“SACs”), candidate Special Areas of Conservation (“cSAC”), and Sites of Community Importance (“SCIs”) designated and defined under the Habitats and Birds Directives. It is also Government policy to treat Ramsar sites, designated by the Ramsar Convention on Wetlands (1971) and potential SPAs (pSPAs) and SACs as if they are fully designated European Sites for the purpose of considering any development proposals that may affect them²⁵.

2.542.54 In line with the requirements of the Habitats Directive, the assessment of this criterion will consider whether it is possible to deliver the plan in ways that mitigate or avoid the adverse impacts on the integrity of the European Sites considered in the Habitats Regulations Assessment process. If it is not possible at the strategic level of the Habitats Regulations Assessment to rule out potential adverse effects on the integrity of European Sites it will be necessary to comply with the requirements of Article 6(4) of the Habitats Directive, and to consider whether there is an absence of alternative solutions for delivering the plan or project and ~~that whether~~ there are Imperative Reasons of Overriding Public Interest (“IROPI”) for still progressing the plan or project. In such circumstances there also needs to be compensation measures for the adverse impacts on the adversely affected site. Where the site does not host a priority habitats types or species, then the case for Imperative Reasons of Overriding Public Interest may be made on reasons of social or economic benefits. Conversely, if a site does host priority habitats types or species, the case for IROPI is limited to the following criteria (unless an opinion is sought from the Commission on other, wider, grounds):

2.52

- the protection of human health;
- public safety; and
- overriding beneficial consequences of primary importance for the environment

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²² More information can be found here: <http://www.magic.gov.uk/> and here: <https://data.gov.uk/dataset/ssi-impact-risk-zones>

²³ The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna.

²⁴ Classified under the EC Birds Directive 1979 (codified as amended in the European Directive 2009/147/EC).

²⁵ ODPM, Planning Policy Statement 9 Biodiversity and Geological Conservation; Government Circular: Biodiversity & Geological Conservation – Statutory Obligations and their impact within the planning system (ODPM, 2005); WAG, Technical Advice Note (TAN) 5 Nature Conservation and Planning (2009) or most recent guidance.

2.532.55 Government will consult statutory consultees²⁶ on the Habitats Regulations Assessment and Appraisal of Sustainability reports and their advice will inform the Government assessment.

Information from nominators/points to note:

2.542.56 Nominators will be expected to identify any Natura 2000 and Ramsar sites (including their qualifying features and specific vulnerabilities) that have the potential to be either directly impacted (e.g. land take) or indirectly impacted (e.g. discharge of cooling water from river or sea on bird prey availability) by the development of a new nuclear power station on a nominated site. If Natura 2000 and Ramsar sites were impacted in this way, the Government would expect nominators to comment on the likely level of impact and indicate why, at a strategic level, it should be possible to avoid or mitigate any such impact in line with the standards set by the Habitats Directive.

2.552.57 Nominators will also be encouraged to share the results of discussions they might have had with statutory consultees and other nature conservation bodies responsible for overseeing the management of the ~~areas~~ European Sites in response to this criterion.

Nationally Designated Sites of Ecological Importance

Discretionary

2.562.58 The Government's view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in an area unlikely to cause adverse impact on any Nationally Designated Sites of Ecological Importance. However, proximity to Nationally Designated Sites of Ecological Importance should not rule out nominated sites from consideration and where there is potential for an adverse effect the nominator will need to set out what they are able to do to avoid, minimise or mitigate these effects.

2.572.59 Nominations will be assessed using in particular the Appraisal of Sustainability reports. The Government will assess the potential impact of deployment of a new nuclear power station on nationally designated sites of ecological importance, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact. Nationally designated sites of ecological importance include:

- Sites of Special Scientific Interest ("SSSI"), some of which are also Natura 2000 or Ramsar sites and are therefore covered by the Internationally Designated Sites of Ecological Importance criterion above;
- National Nature Reserves;

²⁶ Natural England, Environment Agency, NRW

- Marine Nature Reserves;
- Marine Conservation Zones/Marine Protection Area;
- Areas of Special Protection Wales and Wildlife Refuges;
- Natural Heritage Areas; ~~and~~
- Areas subject to Limestone Pavement Orders; and
- Areas including Ancient Woodland and Veteran Trees.

2.592.60 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

2.592.61 Government will consult statutory consultees²⁷ on the Habitats Regulations Assessment and Appraisal of Sustainability reports and their advice will inform the Government assessment.

Information from nominators/points to note:

2.602.62 Where a nomination might cover an area that includes, or is likely to impact, a nationally designated site of ecological importance, the Government will expect nominators to comment on the likely level of impact and indicate why, at a strategic level, it should be possible to avoid or mitigate any such impact. Government will also expect a nominator to have taken the views of any statutory bodies responsible for the management of these designations into account in considering the potential avoidance, minimisation and mitigation countermeasures.

Designated Cultural Heritage Assets

Discretionary

2.63 2.75 The Government's view is that it would be undesirable for nominators to propose the development of a new nuclear power station in an area likely to cause significant adverse impact on designated heritage assets and their setting, unless there are clear strategic reasons for doing so and the nominators can confirm that they are able to avoid, minimise or mitigate these effects.

2.76 The Government will assess the potential impact of deployment of a new nuclear power station on designated heritage assets, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact.

Nominations will be assessed for an impact on designated heritage assets using the Appraisal of Sustainability reports, the current planning framework (at this time, the NPPF for England and Planning Policy Wales for Wales), and the relevant statutory provisions. Historic England and Cadw will be consulted on these reports and their advice will inform the Government's assessment.

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²⁷ Natural England, Environment Agency, NRW

2.64 2.77 For the purposes of the strategic criteria, designated heritage assets include:

- World Heritage Sites
- Scheduled monuments²⁸
- Listed buildings
- Registered parks and gardens
- Registered battlefields
- Protected wreck sites
- Conservation areas
- Registered landscapes of historic interest in Wales

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2.65 2.78 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable. Further guidance is available as part of planning practice guidance that accompanies the NPPF in England or Planning Policy Wales, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

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Information from nominators/points to note:

2.79 If a site is nominated in an area which may affect a designated heritage asset, Government would expect nominators to outline how they could avoid, minimise or mitigate the possible effects of their site on that designated heritage asset and its setting, as well as the cumulative impacts on the area and any possible enhancement of the historic environment. Similarly, nominators would also need to consider adverse impacts, including cumulative impacts, on locally designated or non-designated heritage assets and their setting as well as any possible enhancements of these. Government will also expect nominators to outline how they intend to meet the relevant tests in the planning framework at the time of nomination. For designated heritage assets paragraphs 128 to 141 of the NPPF apply. For Wales TAN 24 and PPW applies. Prior to nomination, Government would also expect the nominator of a site to take into account the views of Historic England and Cadw in considering the potential countermeasures to avoid, minimise and mitigate the effects, as well as any possible enhancement of the historic environment.

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2.66 2.80 Nominators will be encouraged to engage with Historic England and Cadw at an early stage and will also be encouraged to share the results of these discussions, as well as those they have had with other statutory bodies responsible for overseeing the management of the areas, and Local Authorities, in response to this criterion.

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Designated Areas of amenity and landscape value

²⁸ Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

Discretionary

2.67 2.81 The Government's view is that it would be undesirable for nominators to propose the development of a new nuclear power station in an area likely to cause significant adverse impact on designated sites of amenity and landscape value, unless there are clear strategic reasons for doing so and the nominators can confirm that they are able to avoid, minimise or mitigate these effects. The likely impact of the proposed site on any Geological SSSIs and whether nominators can confirm that they are able to avoid, minimise or mitigate these impacts will also be considered under this section.

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2.68 2.82 The Government will assess the potential impact of deployment of a new nuclear power station on designated sites of amenity and landscape value, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact. Nominations will be assessed for an impact on designated sites using the Appraisal of Sustainability reports, the current planning framework (at this time, the NPPF and Planning Policy Wales), and the relevant statutory provisions. The statutory consultees²⁹ will be consulted on these reports and their advice will inform the government's assessment.

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2.69 2.83 For the purposes of the strategic criteria, sites and structures of specific amenity and landscape value include sites protected by a variety of national and local designations. These sites are:

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- National scenic areas
- National Parks
- Areas of Outstanding Natural Beauty
- Heritage Coast
- Local Landscape Designations
- National trails
- Coastal Paths (England and Wales)
- Geological Sites of Special Scientific Interest
- Areas of Best and Most Versatile land (BMV)
- Registered landscapes of historic interest in Wales

2.70 2.84 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable. Further guidance is available as part of the NPPF or Planning Policy Wales, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

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Information from nominators/points to note:

²⁹ Environment Agency, Natural England, Historic England, Defra, Northern Ireland, Cadw, Natural Resources Wales.

2.71 If a site is nominated in an area which may affect a formally designated site of high amenity, historic or landscape value, Government would expect nominators to outline how they could avoid, minimise or mitigate the possible effects of their site on that designated area and setting as well as the cumulative impacts on the area and any possible enhancement of the natural environment, including landscape. Similarly, nominators would also need to consider adverse impacts, including cumulative impacts, on locally designated or non-designated areas of landscape value, landscape character, tranquillity and distinctiveness, as well as any possible enhancements of these. Government will also expect nominators to outline how they intend to meet the relevant tests in the planning framework at the time of nomination. For National Parks and Areas of Outstanding Natural Beauty (“AONBs”) these are currently paragraph 116 of the NPPF in England and section 5.5.6 of PPW(TAN 15 is currently the relevant framework in Wales). Prior to nomination, Government would also expect the nominator of a site to take into account the views of any statutory bodies responsible for the management of these designations in- considering the potential countermeasures to avoid, minimise and mitigate the environmental effects, as well as any possible enhancement of the natural and historic environment and setting, including landscape.

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2.72 Nominators will be encouraged to engage with statutory consultees at an early stage and will also be encouraged to share the results of these discussions as well as those they have had with other environmental bodies responsible for overseeing the management of the areas, and Local Authorities in response to this criterion.

Criteria related to operational requirements

It is important that any site is of a suitable size and has the appropriate resources available to securely and safely host a new nuclear power station.

Size of site to accommodate operation

Discretionary

2.73 Sites will have to be large enough to safely accommodate the operation of a modern nuclear power stations. The availability of land is also of particular relevance in the context of security arrangements required for nuclear power station sites. Operators are required to adopt the concept of “defence-in-depth” in protecting nuclear power stations³⁰. This will require them to make adequate land available so that effective control over activities and access may be exercised on and around each nuclear power station. Before construction may commence on land granted a nuclear site licence to install a reactor, the licensee will be required to have a security plan approved by the ONR.

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³⁰ Defence-in-depth is defined by the International Atomic Energy Agency (IAEA) as “a concept used to design security systems that require an adversary to overcome or circumvent multiple obstacles, either similar or diverse, in order to achieve his objective”.

2.74 Both the size and the shape of the area will be considered, given that shape is particularly relevant in considering whether there is sufficient room for defence-in-depth elements of the facility.

2.75 The Government will also consider whether the area nominated includes a provision for the safe and secure storage of all the spent fuel and intermediate level waste produced through operation and decommissioning.

2.76 The nominated area does not have to include land for construction and decommissioning. While an Appraisal of Sustainability will contain a high level assessment of the potential impacts of construction and decommissioning at a site, it is appropriate that detailed assessment of the environmental impacts of construction takes place at the development consent stage. Therefore construction and decommissioning will be flagged for consideration by PINS and regulators (see paragraph 2.104).

2.77 It is assumed a rectangular area of adequate width (approximately 30 hectares for one unit³¹) is required to provide the effective defence-in-depth necessary for the key operational elements of the power station (infrastructure such as the reactor building (including the associated turbine hall), spent fuel and intermediate level waste stores). The most recent nuclear power station to be developed in the UK (Sizewell B) has a total site area of 26 hectares for operational facilities including spent fuel and waste storage. The site will not necessarily need to be large enough for all of the current Generic Design Assessment designs.

2.78 It would be unreasonable to assume that, between nominating land and proposing an application for development consent, the need for an element of additional land use may not occur (see paragraph 3.9 below). The new NPS is therefore expected to outline that should a development consent application be accepted for a site listed within the new NPS but at which it is proposed to locate any of the key operational elements (see paragraph 2.87 above) outside the boundary identified, then this should be considered as an application for a non-listed site. However, the Government would expect the new NPS to be an important and relevant consideration in determining the application under section 105 of the Act. In particular, given that the application would include land which has been assessed by the strategic siting process, the Government would expect the conclusions reached in relation to that land to be important and relevant considerations in determining the application.

Information from nominators/points to note:

2.79 Nominators should describe the area nominated and where it is expected that additional areas will be required for construction and

³¹ Project proposals to bring forward sites accommodating more than one unit may require a larger site. This will be examined in more detail at the Development Consent Order and Nuclear Site Licence stages.

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decommissioning should provide an indication of the additional work and assessments which will need to be undertaken prior to the development consent stage.

Access to suitable sources of cooling

Discretionary

- ↪2.80 Nuclear power stations require suitable cooling for safe and efficient operation. Feasible options for cooling include:
- direct use of sea, lake or river water without cooling towers;
 - use of cooling towers, typically combined with lake or river sites and using considerably less water than direct cooling; and
 - air-based cooling, with minimal water requirements but utilising large heat exchangers.

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- ↪2.81 The environmental impacts of cooling depend largely on the environmental sensitivity of the area, the cooling requirements of the nuclear power station and the detailed design of the cooling system. Both abstraction and discharge of cooling water can affect the environment. Cooling towers can also have some visual impact.

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- ↪2.82 An assessment will consider whether it is reasonable to conclude that there are suitable sources of cooling for a new nuclear power station at a nominated site, taking account of potential measures to counter impacts, and mitigating actions. Government's assessment will be based on advice from the relevant regulators. The findings of the [Habitats Regulations Assessment and Appraisal of Sustainability](#) will also be considered as ~~it~~ these will appraise both the biodiversity and visual impacts of potential cooling technologies.

Information from nominators/points to note:

- ↪2.83 The Government will expect nominators to offer information about cooling technologies that are feasible for likely nuclear power station developments within the nominated site. Nominators will not need to specify particular reactor designs or the number of reactors to be developed on a nominated site but will be asked to cover:
- Whether there are suitable sources of cooling for a new nuclear power station at the nominated site;
 - If water-based cooling is to be employed, the nominator believes that there is sufficient water for this purpose or other measures that need to be put in place;
 - What impacts (including visual impact) there are likely to be from the need for cooling and why it is reasonable to conclude that these impacts are manageable or able to be mitigated;
 - Whether, at a strategic level and subject to local considerations, it is reasonable to conclude that a new nuclear power station on the

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nominated site will be able to be operated within normal environmental and regulatory requirements;

- Any issues that may affect cooling over the lifetime of the new nuclear station (including changes in meteorology, climate etc);
- Potential impacts on the environment, including designated and non-designated sites.

Matters to be flagged for detailed consideration by PINS and ONR at the planning and licensing stage

2.84 These matters will be considered in the rigorous process through which NSIPs must obtain a DCO as set out within the Act. Government expects the new NPS will reflect these matters and make clear which are relevant to examination undertaken by PINS and which are relevant to the regulators.

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The following are flagged as examples of matters for detailed consideration by PINS:

Proximity to Civil Aircraft Movements

2.85 Large aircraft crashes are a rare event in the UK and the risk across the country is not uniform. Certain higher risk areas and zones are defined to protect infrastructure and human casualties from such an event. These include Public Safety Zones, Aerodrome Safeguarding plans and Air Traffic Control Areas. Unlicensed aerodromes, such as some helicopter landing sites, are encouraged to lodge plans for an aerodrome safeguarding plan but cannot be forced to do so by the Civil Aviation Authority.

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2.86 In considering nominated sites, the Government will consult with the relevant regulatory bodies to establish the potential impact of a nuclear power station development at a strategic level. In the case of unlicensed aerodromes that have not lodged aerodrome safeguarding plans, this will be flagged as an issue for detailed local consideration.

Significant Infrastructure

2.87 Access to relevant infrastructure (e.g. road and rail networks, airports, ports, gas and electricity networks and Source Protections Zones) will be an important factor for developers in making their assessments of the practicality of site development. However, to understand the potential impact of a new development on this infrastructure, there will need to be detailed project-specific assessments. This is therefore flagged as an issue for detailed local consideration.

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Access to Transmission Infrastructure

2.88 New nuclear power stations will require connections to the National Grid for the distribution of the electricity that they generate and

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in some areas, connection to the grid will require significant upgrades to both national and local grid infrastructure. This can create considerable environmental and planning issues. However, these issues will be generic to any type of power station development and will not be specific to nuclear.

2.89 The Government recognises that the lack of detailed information about the location of Grid connection, the technology needed and the potential for any deeper system upgrades limits the nature of environmental assessment that can be done at the strategic stage. As such, it would be difficult for nominators to provide much detail about a particular site's transmission and distribution requirements at this stage but this will be considered when detailed environmental assessment can be made at the planning stage.

Size of site to accommodate construction and decommissioning

2.90 Government will ask nominators to provide a description of the boundary of their proposed area as it recognises the importance of providing an appropriate level of certainty to the public, Parliament and PINS on the area of land that is assessed under the strategic criteria. However, Government recognises nominators will not have detailed plans for construction or decommissioning and will therefore not know what land, beyond that required for operations, they will need for these activities. An element of flexibility of site boundary may also be required to enable meaningful detailed discussion to take place with relevant parties at the local level.

2.91 The environmental effects of land use for construction can be significant. However, the environmental impacts of land use for construction will differ from that for operation and the land also has the potential to be restored to its original use within a relatively short timeframe. Size of site is a discretionary criterion, but it will only cover operation. The size of site for construction and decommissioning will be flagged for local consideration, and such land will form part of the main development consent, to be considered by PINS.

The following are flagged as examples of matters for detailed consideration by the ONR:

Seismic Risk (Vibratory Ground Motion)

2.92 Seismic risk is a critical issue in the siting and safety assessment of all nuclear facilities and it is a key feature of the UK and international regulatory regimes which ensure the safety of nuclear power stations. In assessing potential sites for new nuclear power stations, two types of seismic hazard will need to be considered:

- vibratory ground motions; and

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- faults capable of rupture at the ground's surface³² (see below).

↪2.93 Seismic risk, however, is assessed at site licensing stage when detailed site specific and reactor design information is available. The low seismic hazard in the UK means that ground motion due to earthquakes is unlikely to be a barrier in the selection of sites for new nuclear power stations.

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Capable Faulting

↪2.94 Similar to seismic risk, capable faulting is a key feature of the regulatory regimes in the UK and internationally which ensure the safety of nuclear power stations. Active geological faults undergo repeated rupture over time as the stresses in the Earth's crust build up and are released by fault movement. Ground-breaking or "capable" faults are faults that have moved at or near the ground surface at least once within a significant period of time. Capable faults pose significant risk to the structural integrity of even the most robust structures.

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↪2.95 The presence of an active or ground breaking capable fault running through a site may make it unsuitable for siting a nuclear power station.³³ The general professional view of earthquake specialists is that there is little evidence that capable faults exist in the UK. In order to ascertain the presence and status of any capable faults on a site, there would need to be extensive geological investigations and associated laboratory testing and this will be an important consideration at the local level.

Non-Seismic Ground Conditions

↪2.96 Within the UK there is a varied geology and earth-surface processes that create particular (non-seismic) hazards that could be considered in assessing the relative merits of nuclear power station sites. Some examples are consistent with the issues listed by the IAEA^{34 35} including:

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³² IAEA (2004), Safety Standards, Safety Guide No. NS-G-3.6 *Geotechnical aspects of site evaluation and foundations for nuclear power plants* or most recent publication. http://www-pub.iaea.org/MTCD/publications/PDF/Pub1195_web.pdf. EPRI NP-4726 (1989-1991), *Probabilistic seismic hazard evaluations at nuclear power plant sites in the central and eastern United States* or most recent publication.

³³ IAEA (2003), Site evaluation for nuclear installations, IAEA Safety Standards Series, Safety Requirements No. NS-R-3 http://www-pub.iaea.org/MTCD/publications/PDF/Pub1177_web.pdf or most recent publication.

³⁴ IAEA (2004), Safety Standards, Safety Guide No. NS-G-3.6 *Geotechnical aspects of site evaluation and foundations for nuclear power plants* or most recent publication.

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1195_web.pdf

³⁵ IAEA (2003), Site evaluation for nuclear installations, IAEA Safety Standards Series, Safety Requirements No. NS-R-3. http://www-pub.iaea.org/MTCD/publications/PDF/Pub1177_web.pdf or most recent publication.

- undulating terrain necessitating major cut and fill slopes;
- soft and compressible superficial deposits (e.g. river or coastal alluvium);
- naturally cavernous bedrock ("karst" in limestone, gypsum and rock salt deposits);
- complex bedrock conditions, for example, in some of the ancient rocks of the north and west of the UK

2.97 These are common considerations in the siting of a wide range of structures in the UK, and are generally amenable to resolution by appropriate design and construction works. Whilst the Government does not include a criterion related to non-seismic ground conditions in the national criteria, it is an important consideration for detailed site-specific investigations and for the planning/regulatory assessment processes.

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Meteorological Conditions

2.98 National and international safety regulations consider various extreme meteorological conditions which can pose a threat to the safety of a nuclear installation. Such conditions include, for example: strong winds (e.g. hurricanes, tornadoes) and wind-blown debris; extreme rainfall/sleet; heavy snow; heatwaves; forest or wild-land fires; sandstorms; and drought.

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2.99 Existing nuclear power stations operate globally, within areas which are exposed to extremes of weather far in excess of those experienced in the UK. For the purposes of national criteria it is not practicable, to distinguish meaningfully between different areas of the UK on the grounds of meteorological risk but this will be an important consideration at the local level.

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Proximity to mining, drilling and other underground operations

2.100 Mining, drilling and other underground activities can pose a number of risks to nearby nuclear power stations. The potential for collapse, subsidence or uplift of the site surface needs to be evaluated at a local level and the planning process will need to assess these risks. If this evaluation shows that this activity could affect the safety of a nuclear installation, then practicable engineering solutions will need to be implemented. This is specifically noted as an important local consideration for the detailed site-specific investigations and planning and regulatory assessment.

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Emergency Planning

2.101 All nuclear operators are required to make and implement adequate arrangements for dealing with an incident or emergency arising on the site and its effects. Development of appropriate emergency plans in accordance with the nuclear site licence requires a detailed understanding of the nature of the site location and access local residents and working population, the capability and redundancy of local infrastructure and the capability of local emergency services. Plans are prepared in consultation with local authorities, the police, health authorities and other bodies and are regularly tested.

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Alignment: Left + Aligned at: 1.5 cm + Indent at: 2.14 cm, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers