



Proposals for changes to Sizewell emergency
arrangements:
Off Site Emergency Response

Suffolk Resilience Forum report on the January to April
2013 consultation

Dated 10 October 2013

Suffolk Resilience Forum
8 Russell Road,
Ipswich
IP1 2BX

Telephone: 01473 265321 Website: www.suffolkresilience.com
© copyright 2013

Copyright in the typographical arrangement and design rests with the Suffolk Resilience Forum. This publication (excluding logos) may be re-used free of charge in any format or medium provided that it is re-used accurately and not used in a misleading context. The material must be acknowledged as copyright and the title of the publication specified.

Additional copies: You may make copies of this document without seeking permission and may re-use this information (excluding logos) free of charge in any format or medium.

Electronic copies of this document can be found on the Suffolk Resilience Forum website.

Table of Contents

Purpose of this document

Background

Next steps

Annex

Comments on responses received during consultation

Purpose of this document

This document is the Suffolk Resilience Forum's response to comments made by local people during the consultation on proposed changes to Sizewell off site emergency arrangements conducted between 7 January and 8 April 2013 and which are not due to be included in the revised Sizewell Off Site Emergency Plan. It is published as an 'open' document on the Suffolk Resilience Forum website and can be linked from the Suffolk County Council and Suffolk Coastal District Council's websites.

Suffolk Resilience Forum report on the January to April 2013 consultation was published on 2 May 2013 on the Suffolk Resilience Forum website.

Background

A public consultation was held between January and April 2013 to seek views of local residents on the following proposed changes to Sizewell emergency arrangements:

- Changing the Detailed Emergency Planning Zone from its current 2.4kms to 4kms in line with new international guidelines and providing residents who live in this area with regular information on emergency actions in the unlikely event of an incident at the site.
- Introducing a Precautionary Emergency Planning Zone of 4kms to 15kms to improve awareness of emergency planning arrangements to this wider area and allow prompt extension of any emergency response in more extreme situations.
- Increasing capacity for evacuation, rest centres and radiation monitoring to match proposed changes to emergency planning zones.
- Asking for views on the best way of providing information on emergency response actions to residents in the proposed Precautionary Emergency Planning Zone.
- Widening the list of pre-identified vulnerable groups who might be evacuated in the surrounding area to include play groups and residential care homes and adopting precautionary evacuation for such vulnerable groups rather than shelter.

The consultation closed on 8 April 2013. We received 292 responses from a variety of organisations, groups and individuals.

The results of the consultation showed that an overall majority of respondents supported the proposed changes to Sizewell off site emergency arrangements.

Proposal	Number who answered	Number who agreed with proposal	Number who were neutral with proposal	Number who disagreed with proposal
Proposal 1. Introduce a revised Detailed Emergency Planning Zone at 4km.	281	207 - 74%	24 - 8%	50 - 18%
Proposal 2a. Introduce a Precautionary Emergency Planning Zone beyond the Detailed Emergency Planning Zone out to 15km.	281	214 - 76%	23 - 8%	44 - 16%

Proposal 2b. We have no plans to extend emergency planning zones beyond 15km but we need to understand who lives up to 30km from Sizewell so that we can prepare for a hypothetical incident which may affect this wider area.	273	187 - 68%	52 - 19%	34 - 13%
Proposal 3a. Increase capacity for evacuation, rest centres and radiation monitoring to match revised emergency planning zones.	276	236 - 85%	27 - 10%	13 - 5%
Proposal 3b. Make greater use of self evacuation and avoid sheltering whenever possible.	271	189 - 70%	59 - 22%	23 - 8%
Proposal 4. Provide public information to residents, businesses and vulnerable groups out to 15km.	279	236 - 84%	16 - 6%	27 - 10%
Proposal 5. Plan for precautionary evacuation of schools, care homes and play groups in the Precautionary Emergency Planning Zone if downwind of any release of radioactive material.	278	238 - 86%	22 - 8%	18 - 6%

The key findings of the consultation have been used by the local emergency responders comprising the Suffolk Resilience Forum to develop detailed changes to the existing Sizewell Off Site Emergency Plan. These changes also reflect updated national guidance by the Nuclear Emergency Planning Liaison Group and lessons identified from the Sizewell A site Off Site Exercise ARATHORN conducted in February 2013.

The consultation report was passed to the Office for Nuclear Regulation in May 2013, who, in accordance with the Radiation (Emergency Preparedness and Public Information) Regulations 2001 are required to set the Detailed Emergency Planning Zone.

The consultation report identified a range of issues or concerns which are addressed in this document:

- Concern about the size of emergency planning zones, both Detailed Emergency Planning and proposed Precautionary Emergency Planning, being too small and under-estimating the potential area where radioactive contamination might extend following a severe accident.
- Concern about timely issue of Potassium Iodate tablets beyond the Detailed Emergency Planning Zone in severe accidents.
- Concern about ability to successfully evacuate Detailed Emergency Planning Zone in severe accidents due to rural road network.
- Concern over lack of community involvement in Sizewell exercises, particularly evacuation.

- There is a clear divide over use of electronic and hard copy communications methods for prior information where distributed.
- Caution over relying upon electronic communication methods for alerting public.
- Concern over effect of emergency arrangements on:
 - House prices.
 - Land use planning.
 - Tourism.
- Concern over lack of advice for pets and livestock in emergency planning zones.
- Concern over contaminated vehicles and personal belongings.
- Clarification on suitable shelter during any radiation emergency.
- Use imperial as well as metric distances.
- Make prior information available in large print.
- Consider formation of local team of 'Nuclear First Responders' to harness pool of retired nuclear industry workers and other similarly experienced people (eg Radiation Protection Advisors) to augment monitoring capability.

Next Steps

Suffolk County Council has completed the review and revision of the current Sizewell Off Site Emergency Plan dated 2010 and is publishing a revised plan in draft for further public comment alongside this document. At the end of this second public sounding, the revised Sizewell Off Site Emergency plan will be considered by the Suffolk Resilience Forum Executive for endorsement and issue by the end of November 2013.

The Office for Nuclear Regulation continues to assess the Sizewell Detailed Emergency Planning Zone. If any change to this area is notified to Suffolk County Council prior the issue of the revised Sizewell Off Site Plan, the plan will be updated before issue.

Further comments and observations on the revised draft plan when published may be made using the same contact details as the consultation:

E-Mail: emergency.planning@suffolk.gov.uk
 Post: Suffolk Resilience Forum
 c/o Suffolk Joint Emergency Planning Unit
 Endeavour House
 Ipswich
 IP1 2BX

Where changes to the existing emergency arrangements are required, an implementation plan will also be agreed to set out who will lead any change, when changes will take place and how these will be communicated to local responders and to local communities around Sizewell.

Comments on responses received during consultation

A response to issues and concerns raised by respondents during the Sizewell emergency arrangements consultation report is provided on the following pages, together with links to background material where appropriate.

Issue or Concern	Response	Background Information
<p>Concern about the size of emergency planning zones, both Detailed Emergency Planning and proposed Precautionary Emergency Planning, being too small and under-estimating the potential area where radioactive contamination might extend following a severe accident.</p>	<p><u>Previous Nuclear Accidents.</u> A number of respondents made reference to previous nuclear accidents where people were evacuated out to 30kms at Chernobyl and Fukushima suggesting that similar distances should be adopted for detailed emergency planning.</p> <p>Learning from previous radiation emergencies is an important consideration in the review of emergency plans. The final report by Mike Weightman, Chief Nuclear Inspector, covers the differences between the circumstances of the Fukushima event and the potential for something similar to occur within the UK. At para 386 he confirms the difference in risks from natural hazards between the UK and Japan and explains difference in reactor technology at para 402. The conclusions of this report related to emergency planning, endorsed by the Secretary of State for Energy & Climate Change in June 2012, confirmed the need to:</p> <ol style="list-style-type: none"> a. Review UK nuclear emergency arrangements. b. Re-evaluate radiation monitoring capability. c. Improve testing of 'extendibility' for dealing with prolonged accidents. 	<p>HM Chief Inspector's Final Fukushima Report dated September 2011: http://www.hse.gov.uk/nuclear/fukushima/final-report.pdf</p> <p>Government Response to Final Report</p>

Revised guidance for nuclear emergency planning has been issued since March 2012 by the Nuclear Emergency Planning Liaison Group (NEPLG).

International Practice for Emergency Planning Zones.

The Sizewell consultation was based upon the International Atomic Energy Agency (IAEA) concept for managing the off site implications of a radiation emergency using 2 emergency planning zones: an inner zone immediately outside of the site where urgent precautionary action can be taken and a second outer zone where further actions can be taken to avert exposure to radiation. For Sizewell an inner Detailed Emergency Planning Zone (PAZ in the IAEA document) and an outer Precautionary Emergency Planning Zone (UPZ in the IAEA document) was proposed as part of the public consultation. The sizes of these proposed zones was guided by the IAEA guidance at Table 8 on page 76 indicating for a facility such as Sizewell B a inner zone of between 3 and 5kms and an outer zone of 5 to 30kms.

The actual sizes included in the consultation were derived from:

Detailed Emergency Planning Zone (DEPZ) - 4kms - nearest whole number to include all of Leiston.

Precautionary Emergency Planning Zone - 15kms - based upon worst case scenario work completed by the Health & Safety Executive as part of the Sizewell B Planning Inquiry and subsequently included within current HSE guidance on Outline Emergency Planning for Licensed Nuclear Power Stations dated 1990.

UK Policy on Detailed Emergency Planning Zones

Within the UK, the Radiation (Emergency Preparedness and Public Information) Regulations 2001 state that the Office for Nuclear

[NEPLG Guidance](#)

[IAEA Safety Standards - Arrangements for Preparedness for a Nuclear or Radiological Emergency dated 2007](#)

[Guidance for Outline Emergency Planning](#)

	<p>Regulation determine the size of the Sizewell DEPZ. After the cessation of nuclear power generation at the Sizewell A station in 2006 and a subsequent risk assessment showing a reduced risk of a radiation emergency, the Office for Nuclear Regulation began a review of the Sizewell DEPZ in February 2013. If this review indicates a change in area, any new area will be included within the revised Sizewell Off Site Emergency Plan. The results of the public consultation were sent to the Office for Nuclear Regulation by Suffolk County Council to support this assessment.</p> <p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>The revised Sizewell Off Site Emergency Plan will have 2 emergency planning zones:</p> <p>Detailed Emergency Planning Zone. Area set by the Office for Nuclear Regulation. This remains a 2.4kms circle based upon the Sizewell A station but is being reviewed by the Office for Nuclear Regulation. Further detail on any assessment, including the rationale for any change, will be published on the Office for Nuclear Regulation website.</p> <p>Extended Emergency Planning Zone (EEPZ). Up to 15kms. Name changed to reflect national guidance on this outer zone, beyond the DEPZ. Area set by Suffolk local responders based upon the IAEA guidance and the worst case scenario previously described. Ability to extend protection of people beyond the DEPZ in appropriate areas based upon an assessment of the hazard. Protective actions implemented within 10-12hrs of any emergency.</p>	
<p>Concern about timely issue of Potassium Iodate tablets beyond the Detailed</p>	<p>The use of potassium iodate as a public protection countermeasure for radiation emergency is guided by a number of documents:</p>	

<p>Emergency Planning Zone in severe accidents.</p>	<p>a. NEPLG Consolidated guidance Chapter 8 - Early Countermeasures in the DEPZ. This covers how potassium iodate should be used and when its use should be advised and by whom. The key is to ensure that this countermeasure is available to those who are most likely to require it during a radiation emergency to reduce exposure to radiation. As potassium iodate needs to be taken promptly after any emergency and ideally before any radiation arrives, tablets are pre-issued to residents within the DEPZ around Sizewell.</p> <p>b. Public Health England Advice on Emergency Reference Levels for Potassium Iodate following an accidental release. This document provides guidance on radiation dose levels where the use of potassium iodate would be advised to avert radiation exposure. This guidance is used in combination with the hazard assessment at Sizewell, published on the Suffolk Resilience Forum website, to identify where potassium iodate might be needed for a reasonably foreseeable radiation emergency and for a reasonable worst case scenario. An assessment of where Potassium Iodate may be required is made between NHS England, Public Health England and the Suffolk Director of Public Health and the agreed assumptions are included within the Sizewell Off Site Emergency Plan.</p> <p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>The strategy for issuing potassium iodate was reviewed on 26 September 2013 by Suffolk Director Public Health, NHS England and Public Health England. It was agreed that:</p> <p>a. Potassium Iodate would continue to be pre-issued to residents within the DEPZ.</p> <p>b. The taking of Potassium Iodate when advised to would</p>	<p>NEPLG Chap 8</p> <p>PHE ERL Guidance for Stable Iodine</p> <p>Sizewell Information</p>
---	---	---

	<p>continue to be an immediate consideration for any Off Site Nuclear Emergency at the Sizewell B Power Station.</p> <p>c. In line with the likely 10 to 12 hours warning of any emergency that poses a risk beyond the DEPZ, residents within the proposed EEPZ may be advised to evacuate rather than to shelter. Where required, Potassium Iodate will be distributed to evacuated people at Evacuation Centres from stocks held in county.</p>	
<p>Concern about ability to successfully evacuate Detailed Emergency Planning Zone in severe accidents due to rural road network.</p>	<p>The population within the DEPZ is assessed in the revised plan as up to 500 permanent residents and 200 to 300 visiting the area; the visitors figure includes up to 150 people who could have some form of mental or physical disability. Suffolk County Council Highways do not consider these numbers represent a problem if evacuation is needed using the local roads networks leading to the A12.</p> <p>To ensure that evacuation is viable for the main population centre of Leiston in the event of any Sizewell emergency, a technical study has been completed by Suffolk County Council to indicate the potential evacuation times, best evacuation routes and the resilience of the road network if areas of radioactive contamination prevent use of key roads. This study indicated that an evacuation based upon the worst set of conditions - during a summer day with roads to the west of Leiston unavailable - could be achieved within 3hrs. This is well within the 10 to 12 hours warning period likely for an accident that might cause such an evacuation to be needed.</p> <p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>The revised plan includes an updated Evacuation Plan at Annex K based upon the technical study. The revised evacuation plan allows for all of Leiston to be evacuated within the warning period of a worst</p>	<p>Evacuation Study</p>

	case accident scenario.	
Concern over lack of community involvement in Sizewell exercises, particularly evacuation.	The UK does not exercise live evacuation for civil emergency risks. This is a historic position and not something that is covered by law or by any specific government policy. Suffolk County Council and Suffolk Coastal District Council have asked for further investigative work to understand what other countries do with regards exercising evacuation arrangements to inform a view on whether an evacuation practice should take place for a Sizewell emergency.	
There is a clear divide over use of electronic and hard copy communications methods for prior information where distributed.	<u>Approach taken in Revised Sizewell Off Site Emergency Plan</u> The revised plan will include both electronic and hard copy communications methods for prior information and for information provided after any emergency.	
Caution over relying upon electronic communication methods for alerting public.	<u>Approach taken in Revised Sizewell Off Site Emergency Plan</u> The revised plan will include both electronic and hard copy communications methods for prior information and for information provided after any emergency. A number of different ways of passing information will be used in both electronic and hard copy communications routes to maximise the success of such communications.	
Concern over effect of emergency arrangements on: <ul style="list-style-type: none"> • House prices. • Land Use Planning. • Tourism. 	<u>House Prices</u> The impact on house prices around Sizewell/Leiston was addressed during the public consultation earlier this year. There continues to be no evidence that nuclear power generation at Sizewell or associated emergency planning arrangements has impacted on house prices.	

	<p>Anecdotal evidence from the construction of Sizewell B suggests that during this build, houses prices were driven up due to the increased demand for properties in the area.</p> <p><u>Land Use Planning</u></p> <p>Current policy on Land Use Planning around Sizewell is published on the Office for Nuclear Regulation website. A revised Land Use Planning Policy is being considered by the Office for Nuclear Regulation which will move away from numerical values and more towards an assessment of the implication for off site emergency arrangements. Further details on any change to Land Use Planning will be published on the Office for Nuclear Regulation website.</p> <p><u>Tourism</u></p> <p>The Tourism staffs within Suffolk County Council, Suffolk Coastal District Council and Waveney District Council have not identified any significant impact on tourism due the presence of the Sizewell power station. The reopening of the Sizewell B Visitor centre has increased numbers. Many people who visit the area are aware of the proximity of the stations but are not bothered one way or another.</p>	<p>http://www.hse.gov.uk/nuclear/land-use-planning.htm,</p>
<p>Concern over lack of advice for pets and livestock in emergency planning zones</p>	<p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>Advice on pets and livestock will be included within the revised plan once clarified with the Department for Environment Food and Rural Affairs.</p>	
<p>Concern over contaminated vehicles and personal belongings</p>	<p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>The revised plan identifies how contaminated people will be looked after and how vehicles will be managed.</p>	

<p>Use imperial as well as metric distances</p>	<p><u>Approach taken in Revised Sizewell Off Site Emergency Plan</u></p> <p>The revised plan will identify imperial equivalents in brackets to metric distances where first mentioned.</p>	
<p>Make prior information available in large print</p>	<p>Prior information is provided in a Calendar format to residents within the DEPZ. This is available in large print and in different languages on request from the Suffolk Joint Emergency Planning Unit and will continue to be so after the issue of the revised plan.</p>	
<p>Consider formation of local team of 'Nuclear First Responders' to harness pool of retired nuclear industry workers and other similarly experienced people (eg Radiation Protection Advisors) to augment monitoring capability.</p>	<p>This suggestion is being investigated by the Suffolk Joint Emergency Planning Unit alongside existing community resilience arrangements. The ability to harness experienced and/or trained people living locally makes sense but needs to be done within the Health & Safety framework for ionising radiation.</p>	