

Leiston-cum –Sizewell Town Council Meeting

7th August 2007

Leiston Town Hall

Land Use Planning in the Vicinity of Sizewell A and B Nuclear Power Stations

Background

Since the earliest days of nuclear power in the UK, the government has recognised the importance of appropriate siting of Nuclear Installations. For the early Magnox stations such as Sizewell A, the Reactor Location Panel under the auspices of the United Kingdom Atomic Energy Authority laid down criteria as follows.

- a) *Only a few people should be subject to extreme risk; plans should be prepared for affecting the urgent evacuation of persons close to the site in the downwind direction.*
- b) *Protracted evacuation or severe restrictions on normal living should not be imposed on any but small population centres.*
- c) *Temporary evacuation or restrictions should not be necessary for more than 10,000 people in any but exceptional weather conditions. If an accident were to coincide with exceptional weather conditions, not more than 100,000 persons should ultimately be affected*

Following further development work in the 1960's, numerical criteria were developed which provided a basis for the assessment of the relative merits of individual sites. It was concluded that for Magnox sites a "remote siting criteria" should be applied. Coincident with this was the requirement for Local Authorities to consult with UK Government on developments around Nuclear Power Installations to ensure that the siting policy was not compromised.

The approach for siting was scrutinised as part of the Sizewell B Public Inquiry. The approach adopted for Sizewell B was that it was "new to commercial operation in the UK " and a remote siting criteria was appropriate "until appropriate operational experience was gained"

Government Siting Policy

The formal statements on government policy are stated in Hansard and are repeated below.

The Secretary of State for Energy on 11 March 1988 tabled the demographic criteria for assessing potential sites, for both Magnox reactors and AGRs. Magnox reactors in concrete pressure vessels would be allowed some relaxation of the general Magnox criteria if necessary. The following appeared in Hansard for 11 March 1988:

“Energy: Nuclear Power Stations

“Mr Beith: To ask the Secretary of State for Energy what statistical and demographic criteria, for each type of nuclear reactor, are used in Her Majesty's Nuclear Installations Inspectorate's assessment of the safety of sites for nuclear power stations; if he will publish a list showing for each existing nuclear station (a) the relevant limiting criteria compared with (b) the actual population figures in each case; and if he will make a statement.

“Mr Michael Spicer: I am advised by the HSE's Nuclear Installations Inspectorate that the current demographic criteria for assessing potential AGR sites were developed in the late 1960s. These, and more restrictive criteria of a similar type, are used as guidelines for controlling development in the vicinity of existing AGR and Magnox stations respectively. Once a site has been accepted for a nuclear station, arrangements are made to ensure that residential and industrial developments are so controlled that the general characteristics of the site are preserved, and therefore local authorities consult the inspectorate with regard to any proposed development which might lead to an increase in population close to the site and on large developments further from the site. Limiting criteria based upon population distribution are used only for guidance and the inspectorate would not necessarily insist on rigid adherence to them. Other unquantifiable factors are also taken into account.

The limiting criteria are in the form of cumulative weighted population out to various distances all around the site and in any 30 degree sector. To assess a site against the criteria at a certain distance, the population for a given band distance is multiplied by the appropriate weighting factor and the values up to the distance being evaluated are added together. The weighting factors and limiting criteria for Magnox and AGR sites are:

Distance Band (km)	Weighting Factors (w)	CuSum Weighted Population Limiting Constraint	
		Magnox	AGR
Population in a 30° Sector			
0-2	26.0	23,000	96,000
2-3	12.0	37,000	170,000
3-5	5.6	48,000	290,000
5-8	2.8	56,000	430,000
8-15	1.3	82,000	700,000
15-30	0.5	170,000	1,100,000
Population All Around Site			
0-2	32.0	45,000	290,000
2-3	15.0	69,000	520,000
3-5	7.7	120,000	870,000
5-8	4.0	180,000	1,300,000
8-15	1.9	340,000	2,100,000
15-30	0.8	650,000	3,400,000

The items shaded above were not declared publicly in Hansard but have been used in LUP reviews. This policy is still extant

The UK government is a signatory to the International Convention on Nuclear safety which is a binding legal agreement. Under Article 17, there is an obligation to maintain a clear siting policy, which should be consistent with IAEA requirements.

Regulation of Siting Policy

The regulation of siting policy resides with the HSE, which has delegated it to the Nuclear Directorate, the operational arm of which is the Nuclear Installations Inspectorate (NII).

This is achieved through arrangements with the Local Planning authorities where information on developments in the consultation zones around the Licenced site are notified to NII in line with the following.

Consultation Zones – Inner, Middle, Outer

Consultation Zones (km)		
Inner	Middle	Outer
0-2	2-4	4-8

There is a need to refer to HSE/NII developments that increase:

- Residential accommodation or non-residential population in Inner Zone
- Residential accommodation or non-residential population exceeding 50 people in Middle zone
- Population exceeding 500 people anywhere in Outer Zone (5 mile radius, 8 km)

When considering applications, three key aspects are reviewed.

1. **Hazard Potential** If the proposed development has the potential to increase the risk to the existing licensed sites, for example by siting a petrol storage depot adjacent to the site, then further consideration would be given
2. **Emergency Arrangements.** under the Radiation (Emergency Preparedness and Public Information) Regulations (REPPiR), NII will also seek assurance that the developments can be accommodated by the off site emergency plan. The off site emergency plan is developed and maintained by the Local Authority (Suffolk Coastal)
3. **Demographic Criteria** The levels of increase in population from proposed developments are reviewed against the criteria identified earlier.

Current Position for Sizewell

In December 2006, Sizewell A ceased power operation. At that stage Sizewell B had been operating for over 10 years. Taking both of these into account, it was decided that the application of the remote siting criteria could be relaxed. NII wrote to Suffolk Coastal District Council advising them of this, and removing a previous objection to 3 developments within Leiston. In early 2007, as part of the consultations for new nuclear build, Dti (now DBERR) opened a consultation on strategic siting assessment, part of which is recognition that demographic criteria will be applicable to new build. NII on behalf of DBERR is reviewing the existing criteria, and will be providing input into the overall process for strategic siting, with the intention that draft criteria are available in 2008.

NII are currently providing responses to Suffolk Coastal on planning that reflect the relaxation of the remote siting policy discussed above.