WRITTEN REPRESENTATION FOR

SIZEWELL C PROJECT (DEADLINE 2)

Interested Party: Chris Wheeler **PINS Ref:** 20025831

Date: 30 May 2021 **Issue:** Final

1. Introduction

I object to the granting of consent for the construction of Sizewell C and fully support the representations in this respect made by the organisations “Stop Sizewell C” and “TASC”.

My earlier Relevant Representations continue to apply. These are updated and considerably extended below where appropriate.

2. Need

The rapid increase in power delivery from renewable energy projects such as off-shore wind makes the need for a new nuclear power station unjustifiable. Interconnectors, battery banks, hydrogen storage, hydro power etc. can all augment renewable energy sources during periods of low output. Combined Cycle Gas Turbine (CCGT) power stations with Carbon Capture, also providing district heating, are an alternative now under more serious consideration, with the necessity of Net Zero 2050 focusing attention on solving the remaining implementation problems.

3. Nuclear Power is out of date

With other nuclear power plant proposals around the UK and Western Europe being abandoned by their sponsors, or incomplete after a decade plus of construction, it is unlikely that SZC would be part of a viable industry and would therefore be both uneconomic and dangerous to operate due to the lack of specialist skills and equipment required over an extended period to safely operate and decommission it. This is an industry whose time has passed, not one in a renaissance.

4. Spent Fuel Disposal

No arrangements are in place in the UK for the long-term storage of spent fuel, and allowing it to be stored locally for an extended period in limited-lifetime casks in flimsy above ground structures at Sizewell would be both dangerous and unacceptable to the community. Strategically this seems a fatally flawed approach as it provides multiple opportunities for terrorist activities as well as radiation release from defective containment.

5. Safety

The Fukushima-Daiichi and Chernobyl disasters have demonstrated how easy it is for catastrophic nuclear accidents to occur, especially at nuclear plants close to the sea. There can be no confidence in the statements made in the application documents that sea level increases and greater storms will not pose a risk to a site that has already been shown by many experts to be likely to be underwater before the end of its lifetime.

6. Spent Fuel Ponds

The 'hot' fuel removed from the reactor during routine refuelling is extremely dangerous because if not constantly cooled it can overheat and burn with massive release of radioactivity. In the Fukushima-Daiichi disaster it was necessary for fire-fighters to risk their lives pumping water from the ocean to prevent the cracked spent fuel ponds from emptying and exposing the hot fuel rods. Without this action the evacuation of Tokyo might have been necessary. This level of risk is unacceptable adjacent to the populated areas of East Suffolk, and London would be the UK's equivalent to Tokyo. The extreme dangers from 'hot' spent nuclear fuel are a fundamental weakness in the implementation and operation of these types of nuclear reactors.

7. Design unproven

No Western country has yet successfully completed a nuclear power plant of the EPR design proposed, with time and cost overruns present at all current Western sites. Even countries with well-established nuclear fleets from previous decades (e.g. France) have lost key skills (such as specialist welding) required to safely construct the pressure vessels, containment, and pipework. There can be no confidence in the UK industry's ability to safely construct SZC unless and until Hinkley Point C has been successfully completed and commissioned, which will not be for many years, if at all.

8. Political and Financial Risk

Political relationships between the West and China are currently at a very low ebb so any involvement of the Chinese state with SZC would represent a huge risk to the construction and operation of the plant and the implications for the financial instability of the project would be profound.

9. Environmental Impact

And of course the greatest possible objection to SZC is its environmental impact on Sizewell and the surrounding area, including the AONB and adjacent Minsmere reserve, road congestion, noise and disturbance to residents from overnight train movements, light pollution – the list is endless. I fully support the much more comprehensive lists generated and published by others and which I do not propose to reproduce.

10. Rail Infrastructure

The failure of the Applicants to come up with an adequate rail strategy for the delivery of the vast majority of construction materials is unacceptable. The latest approach fails to allocate enough freight train paths to meet more than a fraction of the delivery requirements, and most of the proposed movements will be at night when they will cause substantial disruption to residents close to both the East Suffolk Line (ESL) and to the Sizewell branch line.

The Applicants appear to have placed overreliance on Network Rail (NR) to advise them on the most economic and efficient ways of improving the ESL between Woodbridge and Saxmundham and as a result have failed to consider alternative options. It should be noted that Network Rail are EDF's largest single electricity customer in the UK. It follows that Applicants should have taken more independent advice before accepting NR's view of the difficulties associated with even a modest line improvement such as a passing loop at or near Wickham Market (Campsea Ashe) station. This was explained by NR to require multiple level crossing upgrades and/or closures requiring public consultation and with delayed implementation when other approaches may have been possible.

The Applicant's current rail strategy places the passenger rail timetable at great risk as the timing margins over the single track sections will be greatly reduced. And in the event of freight train breakdown anywhere on the ESL the passenger timetable would be hugely disrupted leading to residents and visitors unable to undertake important planned journeys.

I have proposed an alternative approach which I believe could resolve all these problems, and this was outlined at OFH5 with the script submitted as part of these Deadline 2 representations. As well as greatly facilitating the delivery of construction materials by rail freight rather than road this would also leave a valuable legacy for future.

11. Road Infrastructure

If despite all the objections the project should be approved then it also has to leave a worthwhile road infrastructure legacy for the future. As a minimum this must include the construction of a Four Villages bypass, not just the Two Villages bypass currently proposed. The cumulative impact of the Sizewell project with the proposed Scottish Power Renewables and National Grid Interconnectors projects must be taken into account in this respect.

12. Better Uses for the Site

The renewables energy projects active in the East Suffolk have their own demands for large areas of land suitable for industrial infrastructure. Use of the current SZC site would be greatly preferable to the existing proposal to use inland sites accessed via cable trenches for these renewables projects and allow the location to function as a renewable energy hub.

13. Ongoing Radioactivity releases

The release of low level radioactivity from nuclear power plants presents a health risk to the community as there is no convincing proof that it does not cause serious illnesses. In particular I am concerned about Tritium gas releases which can eventually find their way into the drinking water (2018 tests on local water supplies demonstrate this) and thence into the environment including plants, animals, and of course human metabolism.

Building yet more nuclear power plants must inevitably increase these releases and I suggest we risk a similar problem to that of Climate Change with small releases over many years leading to unacceptable increases in rates of serious health problems. Even defueled nuclear plants produce Tritium (e.g. Sizewell A, due to the several thousand tonnes of irradiated graphite in its core), which is an issue that will not be resolved even in our grandchildren's lifetimes.

A further serious issue is that Essex and Suffolk Water have sought and been granted a relaxation by the Drinking Water Inspectorate from carrying out testing for Tritium and other radioactive components of the local water supply with the usual degree of frequency, and from being obligated to report on the levels of such radioactive components in their public reports. And currently available reports no longer include reference to the radioactive components. This is a most unsatisfactory situation so far as the local community is concerned.

Copies of the relevant pages of the 2018 and 2019 (latest) reports for Saxmundham water are shown below, with the radioactive components, including Tritium, highlighted in yellow. It can be seen that they are only shown in the 2018 report and NOT in the 2019 report.

WATER SUPPLY ZONE Saxmundham

Essex & Suffolk Water: Period from 01-JAN-2018 to 31-DEC-2018

Parameter		U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV Relaxed	No. Of samples contravening PCV	% of samples contravening PCV	Concentration or value (all samples) Min.	Mean	Max.
isoproturon	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
linuron	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
metamitron	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
2,4-DB	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
2,4,5-T	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.001
2,4-D	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	0.005
bentazone	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	0.002
clopyralid	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.004
dicamba	ug/l	S	8	8	0.1	0	0.000	< 0.012	< 0.012	< 0.012
dichlorprop	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	0.002
MCPA	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	0.005
MCPB	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.004
MCPP	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.001
propyzamide	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
chlorthalonil	ug/l	S	8	8	0.1	0	0.000	< 0.010	< 0.010	< 0.010
heptachlor	ug/l	S	8	8	0.03	0	0.000	< 0.005	< 0.005	< 0.005
oxamyl	ug/l	S	8	4	0.1	0	0.000	< 0.020	< 0.020	< 0.020
aldrin	ug/l	S	8	8	0.03	0	0.000	< 0.002	< 0.002	< 0.002
heptachlor epoxides	ug/l	S	8	8	0.03	0	0.000	0.000	0.000	0.000
AMPA	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
hexachlorobenzene	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
flufenacet	ug/l	S	8	4	0.1	0	0.000	< 0.020	< 0.020	< 0.020
lenacil	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
fluroxypyr	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.005	< 0.005
triclopyr	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	0.009
metazachlor	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
pendimethalin	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
pentachlorophenol	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
picloram	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.004
quinmerac	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
lead (total - 10)	ug/l Pb	S	8	8	10	0	0.000	0.053	0.332	0.759
gross alpha	Bq/l	S	8	8	0.1	0	0.000	0.021	0.033	0.046
gross beta	Bq/l	S	8	8	1.0	0	0.000	0.135	0.196	0.281
chloridazon	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	0.004
fenpropidin	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.004
fenpropimorph	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003
terbutryn	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
ethofumesate	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.004
tebuconazole	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.002
tritium	Bq/l	S	8	8	100	0	0.000	< 5.600	< 8.900	< 10.000
chlormequat	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
asulam	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.006	0.009
metaldehyde	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
glyphosate	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.003

WATER SUPPLY ZONE Saxmundham

Essex & Suffolk Water: Period from 01-JAN-2019 to 31-DEC-2019

Parameter		U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV Relaxed	No. Of samples contravening PCV	% of samples contravening PCV	Concentration or value (all samples) Min.	Mean	Max.
isoproturon	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.003
linuron	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.006
metamitron	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
2,4-DB	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.012
2,4,5-T	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
2,4-D	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.004
bentazone	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.003
clopyralid	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.006	< 0.013
dicamba	ug/l	S	8	8	0.1	0	0.000	< 0.012	< 0.013	< 0.017
dichlorprop	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
MCPA	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.002
MCPB	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.005	< 0.014
MCPP	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
propyzamide	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
chlorthalonil	ug/l	S	8	8	0.1	0	0.000	< 0.010	< 0.010	< 0.010
heptachlor	ug/l	S	8	8	0.03	0	0.000	< 0.005	< 0.005	< 0.005
oxamyl	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.004	< 0.014
aldrin	ug/l	S	8	8	0.03	0	0.000	< 0.002	< 0.002	< 0.002
heptachlor epoxides	ug/l	S	8	8	0.03	0	0.000	0.000	0.000	0.000
AMPA	ug/l	S	8	6	0.1	0	0.000	< 0.003	< 0.015	< 0.022
hexachlorobenzene	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
flufenacet	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.005
lenacil	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.006
fluroxypyr	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.007	< 0.018
triclopyr	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.005	< 0.012
metazachlor	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.010
pendimethalin	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.008
pentachlorophenol	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.006
picloram	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.007
quinmerac	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.010
lead (total - 10)	ug/l Pb	S	8	8	10	0	0.000	< 0.033	< 0.184	0.780
chloridazon	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.005
fenpropidin	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.005	< 0.012
fenpropimorph	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.009
terbutryn	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
ethofumesate	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
tebuconazole	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.004
diflufenican	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.003	< 0.009
chlormequat	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.008	< 0.020
asulam	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.007	< 0.017
metaldehyde	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.008	< 0.021
glyphosate	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.011	< 0.017