

“Water discharges at Sizewell C”

- written representation by Frances Crowe to the Planning Inspectorate in respect of the DCO for Sizewell C, June 2021.

This paper is Paper 5 of 6, submitted as part of the written submission for Deadline 2 by Frances Crowe. A written representation summary of all my submissions for Deadline 2 will be separately submitted.

I am a resident of Sudbourne. I have lived here with my family since 2001 (20 years), previously holidaying frequently in the area. My written representation includes detailed papers on air pollution (*‘Air pollution [tropospheric ozone and particulates PM2.5]’*) and on coastal erosion (*“Coastal erosion at Thorpeness and lessons for the Sizewell C Project”*) and a more general paper covering a range of other concerns (*‘Transport, health and other matters’*). I am also submitting three very short papers on radioactive emissions, water discharges (this paper) and diesel generators, which were also submitted to the Environment Agency in September 2020. All six papers will be submitted separately for Deadline 2.

All issues were referred to in my relevant representation.

A transcript of my oral representation (presented on 18th May, 2021) has been separately submitted.

Water discharges at Sizewell C

As a frequent swimmer at Thorpeness/Sizewell for up to 6 months of the year and someone who hugely appreciates the unique habitats and wildlife of the Suffolk coast in the vicinity of Sizewell, I am very concerned about the impact of the additional water discharges that the applicant is seeking permission for at Sizewell C for the following reasons:

- We have already seen significant increases in jellyfish - including stinging species - in recent years in this area. At times last year, for example, large numbers of jellyfish could be seen from the water’s edge acting as a significant deterrent and potential danger to swimmers. I was badly stung several times last year and the previous year for the first time. Research indicates that increases in water temperature in mid-latitudes may broaden the reproductive periods of mid-latitude jellyfish, and improve winter survival of tropical species expanding to temperate waters, therefore boosting both alien and native outbreaks. (Ref. Boero et al, 2016). Increases in jellyfish blooms caused by climate change would be accelerated by local increases in water temperature due to the water discharges from SZC. Sea swimming is a crucial part of the tourism experience in this area and brings health and well-being to local residents. Increases in jellyfish numbers jeopardise this and would further threaten

the very important tourism economy in this area. It is unacceptable that these factors are ignored in the applicant's submission. Studies need to be undertaken to evaluate, quantify and reduce this threat of increasing numbers of jellyfish in our coastal waters.

- EDF estimate that 20,000 tonnes of contaminants will be released into the water as a result of SZC's operation over a period of 60 years (SZC, Bk6, Vol2, Ch21, Appendix 21F BEEMS TRI93, p60). Seawater in this part of the North Sea carries a high volume of suspended matter and this turbidity will be further increased by the water discharge process itself. This turbidity means that contaminants are held in the water, instead of settling. This, together with the ongoing release of contaminants into the water, presents a significant hazard to the health of swimmers, both through ingestion and submersion, which has not been adequately recognised or evaluated. Consideration of these risks especially to frequent swimmers and children (who are especially vulnerable) must be assessed and mitigated for.
- The 2019 State of Nature report cited the UK as one of the most nature-depleted countries in the world with more than one in seven species facing extinction and more than half in decline. The proposed water discharges in an area of such sensitivity, adjacent to internationally important habitats and in known feeding grounds of many important marine and seabird species, are unacceptable, especially in the light of our Government's pledge to give further protection to UK wildlife habitats.
- EDF have not properly considered alternative measures (for example, a closed water cooling system) to reduce this impact. This must be done.
- Within the Secretary of state's decision letter for Sizewell B (SZB), limits and conditions were set to avoid an adverse impact upon site integrity (AEOSI) for the Minsmere-Walberswick Special Protected area (SPA). The proposed limits for Sizewell C are significantly higher. Should new limits be set that exceed those laid out by the Secretary of State, this would constitute an AEOSI for the SPA and surrounding protected areas. I am aware of no scientific basis that supports the limits set for SZB being exceeded. On the contrary, one would expect a tightening of restrictions in the light of greater scientific understanding of the impacts of climate change (and warming seas) and of the scale of biodiversity loss (including acknowledged accelerating depletion of UK wildlife/habitats and the government's recent recognition of the need to urgently introduce more protection for marine habitats). Furthermore, there are now additional Natura 2000 sites designated immediately adjacent to the proposed site (namely, the Outer Thames Estuary SPA). Granting permits for additional discharges would therefore be a direct violation of the Conservation of Species and Habitats Regulations (2017) and may leave the Environment Agency (as competent authority) open to legal challenge and potential judicial review.

Frances Crowe
2/6/21