



Together Against Sizewell C

**APPLICATION BY NNB GENERATION COMPANY (SZC) LIMITED
FOR A DCO GRANTING CONSENT FOR THE SIZEWELL C PROJECT**

TOGETHER AGAINST SIZEWELL C (TASC) IP NO. 20026424

DEADLINE 6 SUBMISSION

COMMENTS RELATING TO THE APPLICANTS D5 SUBMISSION

DOCUMENT 9.57 ACOUSTIC FISH DETERRENT REPORT [REP5-123]

TASC have set out below an overview of document 9.57 [REP5-123] and these comments have been made following TASC's discussions with marine ecologist, Dr Peter Henderson, author of TASC's Written Representation, 'Ecological Impact of Sizewell C on Marine Life' REP2-481h.

1. The Applicant claims that the assessment for Hinkley can, in general, be applied to Sizewell. This is in every detail incorrect. Hinkley is a macro-tidal estuary (tidal range up to 15 m), it has very high suspended sediment loads at all times so visibility is always low, and tidal currents are exceptionally high, reaching about 4 knots. While an attempt is made to claim suspended sediments are also very high at Sizewell, this is not always the case. There are windows of time when visibility would be good.
2. It is claimed that there will be biofouling issues at Sizewell. This is certainly the case, but will, in fact, make the use of an Acoustic Fish Deterrent (AFD) more important. As the intake fouls, the intake slits will narrow and the water intake velocity will increase. The low velocity intake will no longer be low velocity and the AFD would become more important as fish become more vulnerable to the intake.
3. If there are problems getting divers to work safely at the Sizewell intake, then it should be redesigned with diver working in mind. Dr Henderson sees no reason why the system cannot be designed for diver maintenance by including numerous safety features, e.g. tether points, underwater cameras, under water lights etc. There is no indication in this document that any effort has been made to design for diver safety.
4. If an intake 3.5 km offshore cannot be maintained to reduce biofouling and install AFD, then consideration should be given to either redesigning it or moving it further inshore where it can be maintained. There appears to have been no consideration of

other intake designs. The Applicant seems to be saying that the intake has to be 3.5 km offshore just like the Hinkley intake: why?

5. There seems to be a deliberate attempt to exaggerate the level of suspended sediments at Sizewell. The maximum is reported as over 2,000 mg/l. It is worth considering what such a high value would imply. This is 2 g per litre or 2 kg per cubic metre. If you pump 135 cumecs this implies the station will pump in 270 kg of sand per second! This is $270 \times 60 \times 60 = 972$ tonnes per hour or 23,328 tonnes per day! There would be huge safety and environmental implications if the Applicant builds a cooling water intake sucking in more than 20 thousand tonnes of sand a day during a storm!
6. In TASC's opinion, there are many inconsistencies in the arguments presented for Sizewell. When it suits the Applicant, they do not need chlorination to control biofouling, but then they claim the intake will biofoul as it is in a high fouling region, so ADF is a bad idea. TASC understand that, as part of the Hinkley Point C DCO application, CEFAS asserted that a low velocity intake will only reduce fish capture when combined with AFD, yet when it suits the Applicant, they determine that the AFD is not required. In which case why have a low velocity intake? Why place the intake in a location with such high suspended sediment loads if this sediment is then going to build up in the pipework thereby reducing efficiency and potentially causing operational problems, for example with the fish return system?
7. If the sediment passes through the cooling water system, will it build-up in the vicinity of the discharge? If the Applicant's findings of the amount of suspended sediment are correct, then there is an important ecological impact the Applicant does not appear to have considered. The sediment released at the outfall will smother the bottom fauna in the vicinity of the discharge. This will be significant if thousands of tonnes per year are released.