EA briefing for Defra – re Crustacean deaths NE Coast, potential radiation cause (26/11/21)

1. The annual 'Radioactivity in Food and the Environment' (RIFE) report presents results of nation-wide monitoring programmes conducted by the Environment Agencies and the Food Standards Agencies. These monitoring programmes support our regulatory function and provide a check that public radiation exposures are low and within legal limits. The most recent report, which reviews monitoring data from 2020, shows that food remains safe and the public's exposure to man-made radiation is within legal limits (Radioactivity in food and the environment (RIFE) reports - GOV.UK (www.gov.uk).

2. Hartlepool Nuclear Power Station (operated by EDF E NGL and regulated by the EA) is currently in a double reactor outage. The majority of radioactive liquid effluent releases from the station are to sea are via a 2 km pipeline offshore into Hartlepool Bay, with a minor component discharged to the River Tees. All releases of liquid radioactive waste via these routes is well within permitted limits (last permit return for September 2021) and we have no reason to believe any other relevant permit conditions have been breached. The local Environment Officer has also done some checks with respect to the non-radioactive discharges from the site following a NIRS report and this has been ruled out.

3. Under their environmental permit requirements EDF E NGL are required to carry out an environmental monitoring programme to assess levels of radioactivity in the environment surrounding their site. EDF E NGL most recently reported results from sample collected and measurements taken in Quarter 2 (April-June 2021). It includes radioactivity concentration measurements for crab, shellfish and sediment. All values were well below any generalised derived limits or maximum permitted levels. One slightly elevated gamma dose rate reading was returned over sediment in the Greatham Creek area, however EDF E NGL have indicated from their Quarter 3 monitoring that the measured value has substantially decreased and appears to have been an anomalous result. All other environmental monitoring programme results returned similar values to those seen historically and no results of concern were identified. We have yet to receive the formal report for the Q3 period (July-Sept 2021) from EDF E NGL, which is due before the end of December.

4. The EA routinely carries out environmental sampling (sediment, sea water, sea coal and seaweed) in the Hartlepool area as part of our independent environmental radiological monitoring programme (see map below). The EA's monitoring contractors (Socotec) are currently in the process of analysing samples which were collected from the Hartlepool area on 25th and 26th October 2021. This data will be available week beginning 29th November 2021.

5. Routine sampling of radioactivity in food is commissioned by the FSA. It is noted from the EA slide pack that their Chemical Risk Assessment Unit has been involved in this incident to date. Contacts in their Radiological, GM and Novel Foods Team are as follows [redacted] @food.gov.uk.It is very unlikely that radioactivity would be responsible for these crustacean deaths. We carry out regular monitoring of radioactivity in the Environment, the findings of which are presented in the RIFE report. We know that levels of radioactivity detected are significantly below levels that would cause concern to human health or organisms.
We do have means to arrange for additional environmental sampling (water and sediment), but we can see very little value in doing so. This would take some time to arrange and the sort of sampling that we could arrange would be identical in nature to that which is already carried out to produce RIFE.

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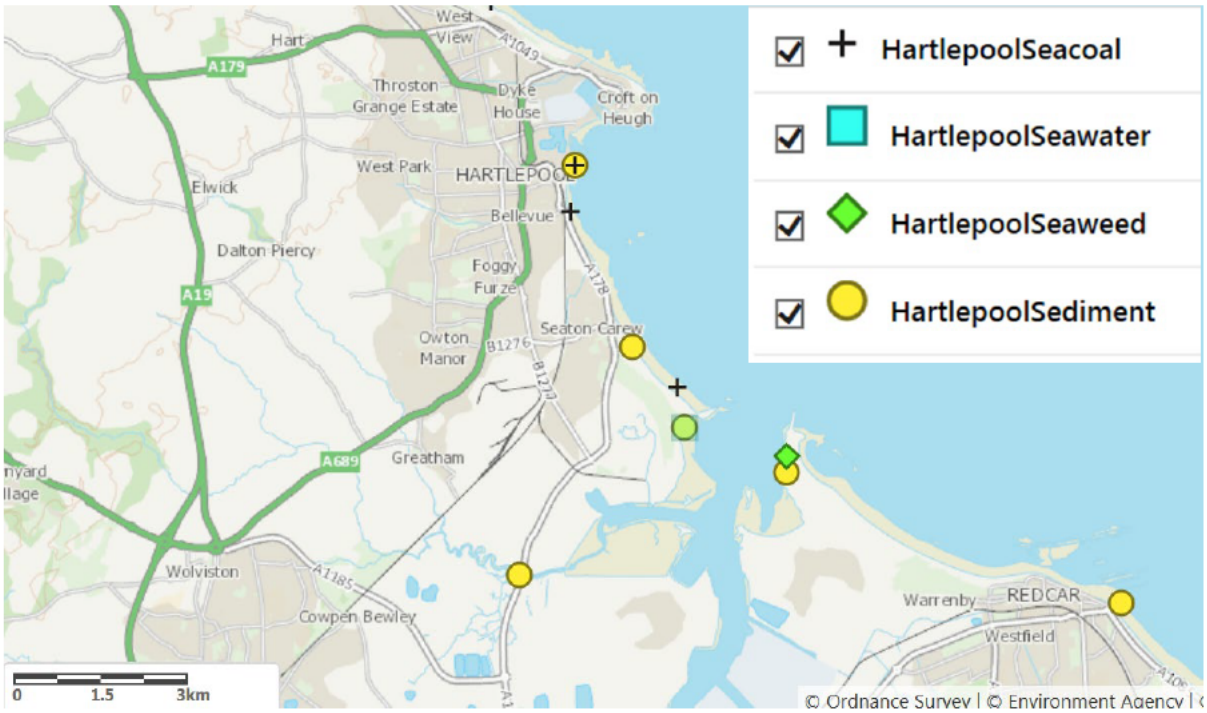
Geographic points for routine radiological monitoring