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 EDF Energy

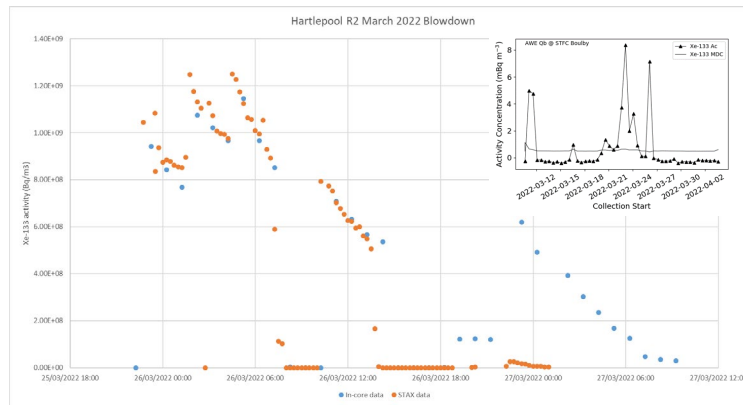
The Xenon Environmental Nuclide Analysis at Hartlepool (XENAH) collaboration involving scientists from the U.K., U.S and Sweden are performing measurements at Hartlepool Power Station in the North-East of England using a suite of monitoring techniques to better understand radionuclide emissions from a nuclear power reactor and how these might affect the IMS. The XENAH collaboration will perform these measurements with strong cooperation of the reactor operator, EDF Energy.



**XENAH – Scientific Objectives**

XENAH collaboration aims to undertake three distinct measurement programs:

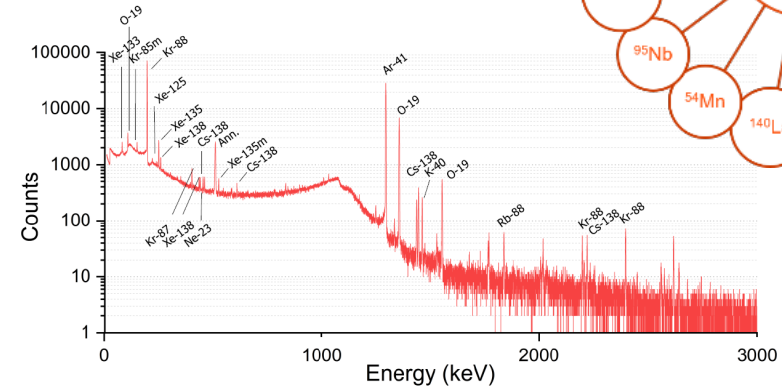
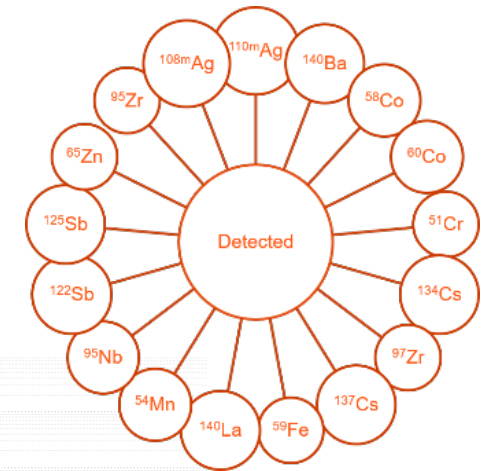
- Reactor stack emission monitoring (source)
- Remote detections after atmospheric transport
- Sample measurements and in-core coolant analysis



*At-stack measurements during refuelling releases and possible remote detection*

**XENAH – Results so far...**

*Detections of fission and activation products from ultra-sensitive measurements of in on-site filtration media*



*In-core on-load coolant activity measurements*

**Come see and discuss...**

**E-poster Virtual Session 3: Wed 18:30 – 19:30**  
**Poster Session 2.4: Thurs 09:00 – 10:00**



*Hartlepool power station, located on the North-East coast of England*

- The Station operates 2 Advanced Gas-cooled Reactors (AGRs)
- AGR is a graphite-moderated reactor, using Pressurised CO<sub>2</sub> as primary coolant that runs at 1570 MW(th)
- Utilises low-enrichment uranium fuel, 3.2% - 3.78%