

UK nuclear emergency planning offsite plans – any real change?



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CNFE Fukushima Conference, March 2021



Agenda

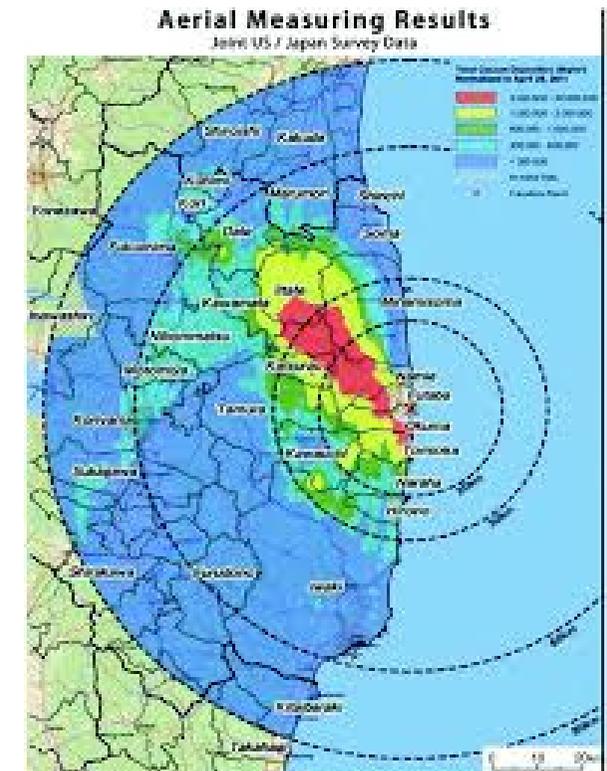
- **Fukushima and the need for change**
- **EU Basic Safety Standard and Changes to REPPiR**
- **Issues – size of inner and outer zones**
- **Pro-active or reactive plans and public behaviour**
- **Pre-distribution of iodine tablets**
- **Enhanced role of Councils and changed role of ONR**
- **Testing and exercising and public information**
- **Conclusions**





Fukushima and the need for change

- Fukushima disaster saw wide-scale & huge evacuation
- Real confusion over shelter or evacuation
- Vulnerable people died
- Roads clogged up due to panic
- Radiation spread over larger area than expected
- An emergency planner's nightmare
- International change was required
- **FAILURE OF EMERGENCY PREPAREDNESS**





Key EP lessons from Fukushima

- Evacuation predicated on 10 km zones (45 – 60 km evacuation in places)
- Huge traffic congestion on all roads after incident
- Local residents received little public information
- Some could not evacuate due to lack of petrol
- Many evacuated multiple times – tired and ill
- Rest centre conditions very difficult for vulnerable
- Radiation dose predictions not used for 10 days
- Those sheltering struggled to stop airflow into house
- Some sheltering ran out of supplies
- Thousands of people self-evacuated





EU Basic Safety Standards & REPPIR

Revision and consolidation of
Euratom Basic Safety Standards



European Commission
DG Energy
D4: Radiation Protection
Augustin Janssens



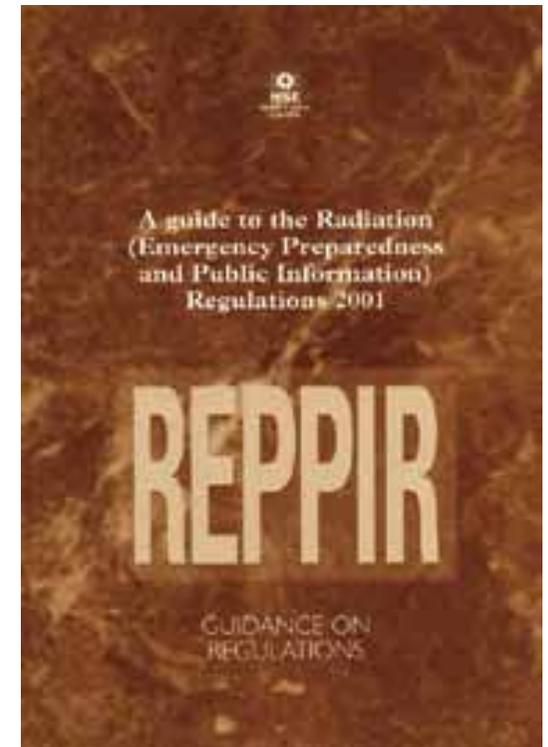
Augustin.Janssens EC DG ENER D4

- EU ordered all states to revisit emergency plans
- Understand learning points from Fukushima
- Consider wider area evacuations
- Improve national nuclear emergency planning
- Look at sheltering and public information
- Consider distribution of potassium iodide
- For UK – major update of UK emergency plans



REPPIR 2019 – UK regulations

- **REPPIR - Radiation (Emergency Planning and Public Information) Regulations**
- **LA now takes lead role for offsite planning**
- **EDF puts forward size of detailed inner emergency planning zone (DEPZ)**
- **Public Health England provides advice to LA / Office for Nuclear Regulation reviews plan**
- **Outline Planning Zone (OPZ) set at 30kms (Fukushima scenario)**
- **Potassium iodide for DEPZ**
- **Guidance for public from Local Authority**
- **Testing and exercising programme**





Size of inner and outer zones

- Most sites keeping inner DEPZ as it was pre-REPPiR 2019
- A few have made slight increases to the DEPZ, such as Burghfield, following Public Health England advice
- Some early drafts had seen reductions to the DEPZ, but most Councils have pragmatically kept them as previously
- OPZ largely set at 30kms – should bring in adjoining councils





Pro-active or reactive EP?

- DEPZ generally involve very few people
- Receive reasonable information and on warning system
- What if just outside?
- Duty is reactive for OPZ – appears only information will be on Council websites
- Little promotion of plans to take place





Pre-distribution of iodine tablets



- Iodine tablets for young and vulnerable could be important in a radiation incident
- REPPIR plans – only for those in DEPZ
- Outside DEPZ – general practice to have in ‘regional stores’
- But in an incident self-evacuation and traffic congestion likely!
- France, Belgium, Germany, US, Canada all do wide pre-distribution, but NOT UK!



Enhanced role of LA & ONR's role

- **Local Authority given lead role to develop plans**
- **But LA Emergency Planning Units have been cut in half since 2010**
- **Seems to be a culture of encouraging reactive than proactive emergency planning**
- **There should be more public information than just sections on websites!**
- **ONR role now to validate plans – it does not look like they have made any major changes**
- **Has little really change with REPPIR in relation to Fukushima?**



Office for
Nuclear Regulation



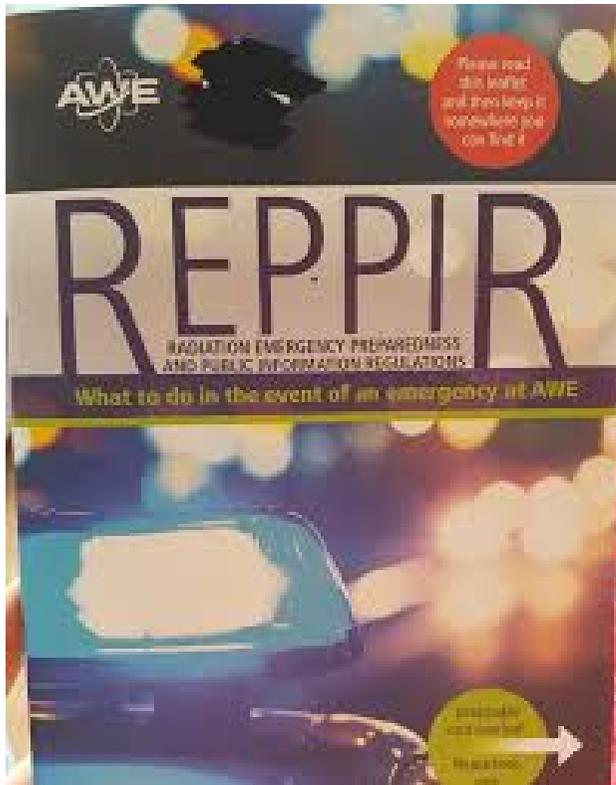
Testing, exercising and warnings



- **Each plan must be exercised regularly**
- **Largely ‘tabletop’ scenario exercises (like in the picture)**
- **A real need for ‘live’ exercises and independent observers at the site**
- **Emergency warning system – phone messages in DEPZ**
- **City centre evacuation warning systems – much more extensive and dynamic**



Public information on REPPIR



- **Pre-REPPIR 2019 leaflets / calendars largely done by operator**
- **Often inoffensive and full of reassurance**
- **Only go to DEPZ households**
- **LA take on this role and hopefully these will improve**
- **OPZ and wider – downplaying risks despite it being a core part of REPPIR change**
- **Rimnet, emergency communication, national planning – is it fit for purpose?**



Conclusion – reassurance or alarm?

- REPPIR 2019 has some welcome changes
- But has little really changed?
- Far too more reactive emergency planning
- Not about alarming people but reassuring
- Similar issues with CBRN planning
- In a Fukushima scenario – are these plans fit for purpose?
- More public discussion and education required

