

United Kingdom

EPR Fact Sheet

Decision making

Response to a major UK emergency is managed primarily at the local level by the Strategic Coordinating Group (SCG), which would normally be chaired by the police during the emergency phase and the local authority during the recovery phase. The operator, local and national agencies, and Government support the local strategic decision-making process.

At a national level, a nominated Government Department leads the national response. This Department is responsible for briefing the UK Parliament, the media and the public at a national level, and for providing information to the UK's international partners. Where necessary, specialist advice and assistance is provided to support the local response, together with the provision of any necessary extra resources.

Advice

A Scientific and Technical Advice Cell (STAC) is formed locally to provide advice to the Strategic Coordinating Group (SCG), particularly on public health matters. STAC comprises representatives from local and national agencies who use their expert knowledge and the available information (e.g. plant status and environmental monitoring results) to form a common view of the situation and provide appropriate advice. At a national level, Government is advised by the Scientific Advisory Group for Emergencies (SAGE).

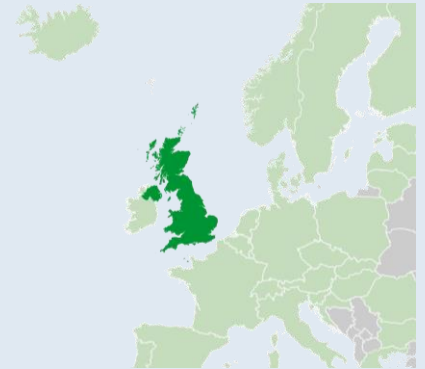
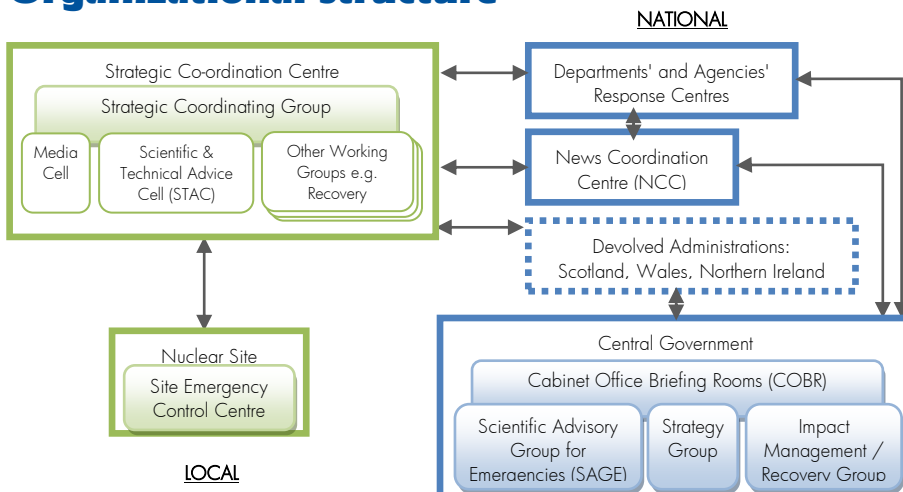
Licensee

The licensee's role includes: providing radiological data and plant information, which are used to formulate public protective advice; ensuring the safety of onsite personnel; configuring the plant or process in a safe condition; terminating the release of radioactivity as quickly as possible; providing compensation.

Alarming

The licensee notifies the nuclear regulator, supporting agencies, Government and the public through a well-defined notification chain.

Organizational structure



Country info

Capital	London
Official language	English
Population	64 M
Area	243 000 km ²
Currency	Pound (£)
Time zone	UTC
Calling code	+44
Internet TLD	.uk
NPPs /ele. share	8/18%

NWP* / NCA*

Department for Business, Energy and Industrial Strategy (BEIS)
Scottish Government

Nuclear Regulatory Body

Office for Nuclear Regulation (ONR)

Emergency website

<https://www.gov.uk/guidance/emergency-response-and-recovery>

Online measurements

RIMNET

Bilateral agreements

Denmark, France, Ireland, Norway, Russia

RANET capabilities

- Radiation Survey (EBS)
- Environmental Sampling and Analysis (EBS)
- Radiological Assessment and Advice (EBS)
- Dose Assessment (EBS)

*National Warning Point and Competent Authority under the Emergency Conventions

Nuclear facilities* and population

NPP	Reactors	Type	MW _e †	GPS coordinates	5 km pop. ‡	20 km pop. ‡	Planning zone size (km) [°]
Dungeness B	2	GCR	1230	50.913° N 0.961° E	2 000	54 000	2.4
Hartlepool	2	GCR	1310	54.635° N 1.179° W	29 000	684 000	1
Heysham 1	2	GCR	1250	54.029° N 2.915° W	29 000	275 000	1
Heysham 2	2	GCR	1360				
Hinkley Point B	2	GCR	1310	51.208° N 3.127° W	2 000	199 000	3.5
Hunterston B	2	GCR	1288	55.722° N 4.889° W	10 000	153 000	2.4
Sizewell B	1	PWR	1250	52.214° N 1.621° E	9 000	61 000	Approx 2-3 km
Torness	2	GCR	1360	55.968° N 2.408° W	1 000	19 000	3
Other facilities							
Sellafield	Nuclear fuel reprocessing, decommissioning, waste management			54.421° N 3.498° W	5 000	68 000	Approx 6-7 km

* The IAEA emergency preparedness category 1 and other relevant facilities.

† MW_e is the gross output totalled over all reactors at each site.

‡ Usual resident night time population.

° Greater distances are used for restrictions on food and commodities.

Planning zones

At present, detailed [emergency planning zones](#) are undergoing redetermination by the Office for Nuclear Regulation (ONR). Detailed Emergency Planning Zones are not necessarily coterminous with urgent countermeasure areas. Urgent countermeasure areas are based on the application of the UK Emergency Reference Levels.

Protection strategy

Consideration of site-specific action levels, emergency reference levels of averted dose, and reference levels of residual dose all play a part in determining where and when emergency actions are required, e.g. evacuation, sheltering, taking stable iodine tablets.

Criteria

National guidance on the use of short term or urgent countermeasures is provided through the “Emergency Reference Levels” (ERLs) defined by Public Health England (PHE). The ERLs set out the scale of radiation dose reduction (ie benefit) that would be sufficient to justify the use of a particular type of countermeasure in response to a nuclear emergency. Because the potential impacts from introducing a particular countermeasure will vary according to the circumstances in which they are invoked, PHE provides a range of ERL doses for each type of countermeasure. The lower end of this range represents the scale of dose reduction that would justify use of that countermeasure under conditions where the detriments of the countermeasure were least – ie the circumstances for enacting the countermeasure were at their most favorable. Conversely the upper ERL in the range for a particular countermeasure is the level of dose reduction that PHE advises would be likely to justify that countermeasure even when its implementation could be more challenging.

Emergency classification

The classification for nuclear emergencies is either ‘on-site incident’ (not classified as an emergency) or ‘off-site nuclear emergency’.

Existing and proposed sites for nuclear power stations



Protective Action	Emergency Reference Levels (mSv)		
	Lower	Upper	
Sheltering	3	30	Averted effective dose
Evacuation	30	300	Averted effective dose
Stable iodine	30	300	Averted thyroid dose