



# UK Evaluation Activities within ONR's Fukushima Programme

Gary Booth

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# Presentation overview

- Introduction to Office for Nuclear Regulation (ONR)
- ONR Fukushima related activities
  - ‘Mike Weightman’ reports
  - European Stress Test
  - IAEA action plan
- Details and latest position

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# Office for Nuclear Regulation (ONR)

- 1/4/11 ONR created as an agency of HSE prior to legislation to form as Statutory Corporation
- Safety (NII), Security (OCNS), Safeguards (UKSO), Transport (RM TT)
- NII >50 years old
- 450 staff, ~50% technical
- >95% costs recovered
- Joint Purpose: 'Secure the protection of people and society from hazards'

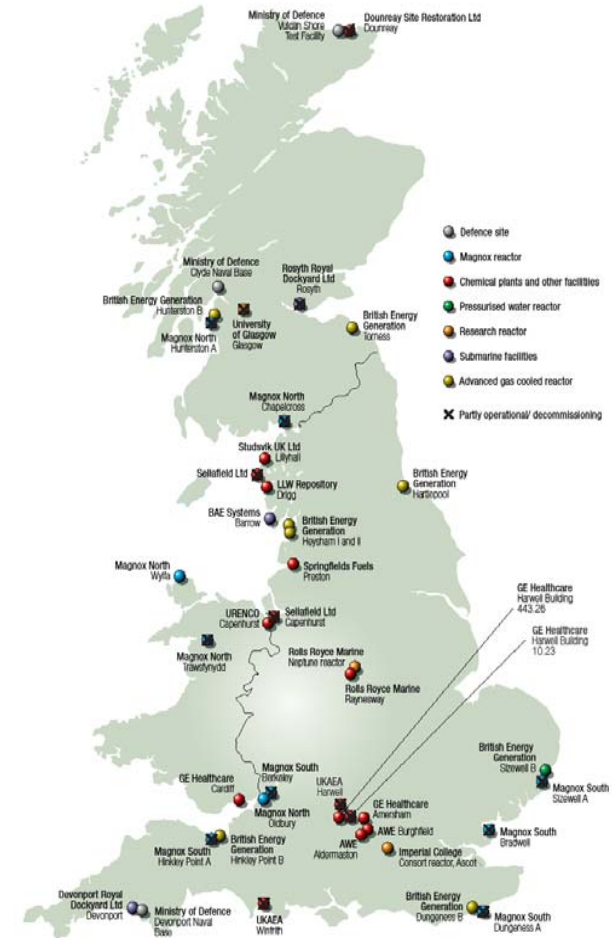


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# ONR main activities

- Regulation through Programmes
  - Civil Nuclear Reactors, Sellafield, Other fuel cycle facilities, Defence, Civil Nuclear Security, Civil Nuclear and Radiological Material Transport
- Generic Design Assessment
- Policy, International, Research
- Goal setting regulatory regime – onus is on industry to demonstrate risks are adequately controlled



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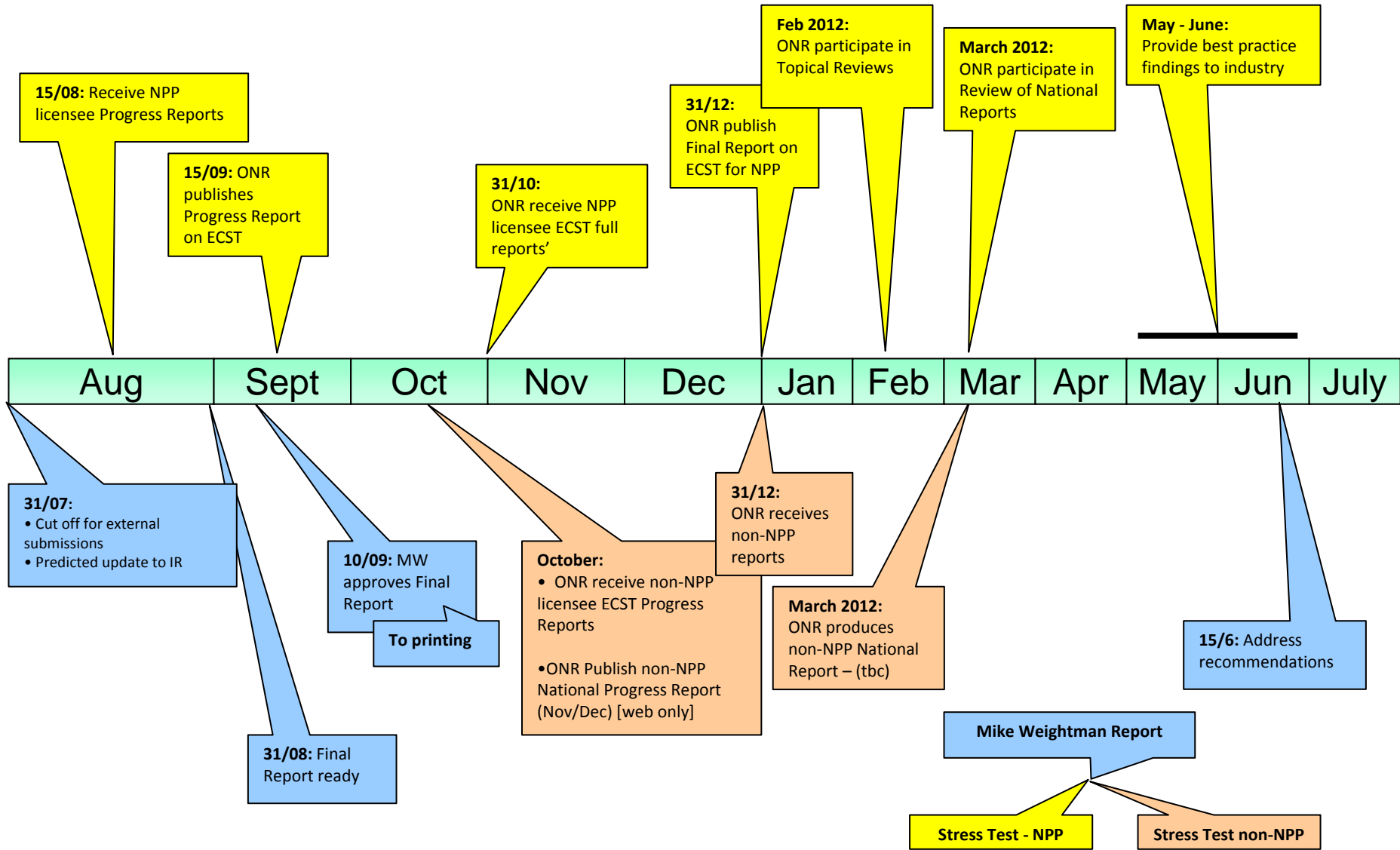
# ONR Response to Fukushima

## ‘Securing the Protection of People and Society’ - 17000 UK Nationals in Japan

- Setting up Incident Suite – ran for two weeks sometimes 24hrs
- Advice to UK Chief Scientist Advisory Group and Highest levels of UK Government
- Links with International Stakeholders
- Prompt assurance of UK fleet
- Mike Weightman Reports to Government on implications for UK
  - Interim provided in May, Final Report provided in September
- European Stress Tests
- International Work – UN IAEA Mission & emergent Action Plan

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# Mike Weightman Interim Report

- Focus on UK Civil Nuclear Power Plants (NPP)
- Background to radiation, technology and regulation
- Timeline of events
- Comparison of Japan situation and UK
- Developed through submissions
  - Independent Technical Advisory Panel
- 11 Conclusions, 26 Recommendations

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# Chief Inspector Final Report

- Inclusion of all UK Nuclear Facilities
- Built on Interim Report
- Additional information considered (IAEA mission, substantial Japanese report, responses to Interim Report, more submissions)
- 6 additional conclusions and 12 additional recommendations

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# KEY MESSAGES from Reports

- Confident no fundamental weakness in UK nuclear facilities or systems
- No matter how high the standards, the quest for improvement must never stop
- Vital to learn lessons and take action
- Underlying it all is a need for a vibrant and active safety culture

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# Report Conclusions: General

- No reason to curtail nuclear operations in UK
- All findings of the Interim Report remain valid
- UK nuclear industry has reacted appropriately
- The creation of ONR as Statutory Corporation should enhance confidence in the UK regulatory regime
- Continue remediation of Legacy Ponds and Silos with utmost vigour

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# Report Conclusions: Technical

- UK Advanced Gas-Cooled Reactors (AGRs) give longer timescales for remedial action
- No evidence that the presence of MOX contributed to health impact
- There is likely to be scope for lessons regarding human behaviour

# Report Conclusions:UK Regulatory Regime

- UK approach to design basis is sound
- No gaps in the regulatory safety principles
- No fundamental weaknesses been revealed in UK nuclear licensing regime
- Periodic Safety Reviews robustly identify necessary improvements to facilities in the UK – keeps pace with new standards, knowledge and experience
- Level 2 Probabilistic Safety Analysis (PSA) is important for sites with the potential for significant off-site consequences

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## Report Conclusions: New Build

- Flooding risks are unlikely to prevent construction of new Nuclear Power Plants
- No need to change present siting strategy
- No reason to depart from multi-plant site concept

# EC Stress Test

- European Council 24/25 March – safety of all EU nuclear plants should be reviewed
  - WENRA developed specification
  - ENSREG agreed
- Review design against flooding and seismic
- Check consequence of loss of power/heat sink
- Consider severe accident management issues

# EC Stress Test

- NPP duty holders perform by Oct 2011
- National regulators produce national report by Dec 2011
- European task force peer reviews national reports by Apr 2012
  
- Wider application in UK to all non NPP facilities

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# International Fact Finding mission

- UN IAEA and Government of Japan agreement
- 24 May 2011 to 1 June 2011
- Open provision of information
- Team of world experts
- Ministerial meetings
- Visit 3 sites
- 16 lessons, 15 Conclusions
- Summary Report to Japanese
- 140 page Report to IAEA – led to IAEA plan for global action



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## On-going ONR activities in response to Fukushima

- Mike Weightman Reports
  - Address recommendations
- European Stress Test
  - Provision of stress test National Report
  - Provision of non-NPP National Report
  - Participation in European peer review
- International
  - UN IAEA action plan

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## In addition

- Transparency – all submissions published on ONR website alongside all reports
  - Including Government, licensee, opponents to nuclear power
  - Redacted if necessary
  - Technical Advisory Panel
- Safety margin
  - Operational level – design basis – failure point

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## So in conclusion ...

Learn the lessons and take action – It is about Leadership and Humility



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**Thank you**

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