



**The Rt Hon Chris Huhne MP**

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## **JAPANESE EARTHQUAKE AND TSUNAMI: IMPLICATIONS FOR THE UK NUCLEAR INDUSTRY**

I would like to thank you and your team again for the essential work that you have undertaken in preparing your full and final report on the events of the Fukushima accident and the implications for the UK nuclear industry.

I welcome the findings and recommendations of the report. I particularly note the re-iteration of your conclusion that you see no reason, in considering the direct causes of the Fukushima accident, for curtailing the operation of nuclear power plants or other nuclear facilities in the UK.

Having considered the findings of both your interim and final reports I continue to see no reason why the UK should not proceed with our current policy: that nuclear should be part of the future energy mix, as it is today, providing that there is no public subsidy, beyond that available to other low-carbon energy sources.

I set out below, in more detail, the Government's plans to take forward work in the areas where you have identified actions of direct relevance to us, namely recommendations IR 1-3 and FR 5-9.

As I have said before, safety is, and will continue to be, one of our leading priorities and it is essential that Government, Regulators and Industry maintain the pace and commitment to implementing the recommendations you have made, in line with the principle of continuous improvement in nuclear safety.

**Recommendation IR - 1: The government should approach IAEA, in co-operation with others, to ensure that improved arrangements are in place for the dissemination of timely authoritative information relevant to a nuclear event anywhere in the world.**

**Recommendation FR – 9: The UK Government, nuclear industry and ONR should support international efforts to improve the process of review and implementation of IAEA and other relevant nuclear safety standards and initiatives in the light of the Fukushima-1 (Fukushima Dai-ichi) accident.**

#### Action

The Government has continued to work with its partners in the G8, G20 and other international fora to ensure better compliance with international conventions and push forward work on enhancing nuclear safety standards established under the auspices of the IAEA.

The UK has participated in the IAEA activities that led to the development of the Director General's Action Plan and will continue to work with the IAEA to help ensure the delivery mechanism for the Action Plan is both robust and realistic - especially bearing in mind the significance of the work it proposes.

In meeting the actions proposed by the plan the UK have already committed, through the UK's statement at the IAEA Ministerial Conference, to participate in further IRRS peer review missions.

We are also already fully participating in the EU stress test initiative which fulfils the requirement to undertake a comprehensive assessment of safety at the UK's nuclear power plants.

We are also committed to working with our international partners to consider how the dissemination of information under the Convention on Early Notification of a Nuclear Accident can be further improved in terms of both efficiency and substance.

**Recommendation IR - 2: The Govt should consider carrying out a review of the Japanese response to the emergency to identify any lessons for UK public contingency planning for widespread emergencies, taking account of any social, cultural and organisational differences.**

#### Action

The Government is carrying out a review of the Japanese response to the widespread civil emergency that occurred following the Tohoku Earthquake and Tsunami of March 2011. We will then compare our findings with our own civil contingency planning to identify whether there are lessons that can be learnt from the Japanese experience to improve our own planned response to (catastrophic) emergencies.

The review will consider:

- What happened in Japan: the earthquake and tsunami and their impact
- The Japanese response to the range of diverse impacts that occurred across a large geographical area.
- Current UK risk identification, contingency planning and capacity building processes
- Key issues arising from the Japanese experience which have read across to UK contingency planning so that we can identify lessons to make our planning even more robust.

As part of these broad categories, we will also consider other cross-cutting issues which are crucial to ensuring the most efficient response possible.

We have already consulted with, and gained valuable evidence from, the Japanese Government and the FCO, as well as a range of publically available reports that have already been written about the emergency. In order to complete this review in a timely way, we will use the evidence currently available to inform our thinking, however it should be noted that the Japanese response to this crisis is still ongoing and further evidence continues to emerge: it is unlikely that final conclusions will be able to be drawn before the Japanese have been able to complete and evaluate their response in full.

**Recommendation IR - 3: The Nuclear Emergency Planning Liaison Group (NEPLG) should instigate a review of the UK's national nuclear emergency arrangements in light of the experience of dealing with the prolonged Japanese event.**

#### Action

In May, the Nuclear Emergency Planning Liaison Group (NEPLG) agreed, in response to Recommendation 3 of the Interim Weightman Report, to conduct a review of the UK's national nuclear emergency arrangements in light of the experience of dealing with the prolonged Japanese event.

As part of that review, NEPLG has:

- Examined the decisions and actions that were taken in Japan to protect the public, and considered any lessons that the UK could learn from those actions;
- Re-evaluated radiation monitoring capacity and capability and coordination including the coordination of Radiation Monitoring Units, and monitoring of food and the environment, both during the acute and longer term recovery phases; it recommended that Central Government clarify the requirements for delivering the data and information in the event of a prolonged incident in the UK and that these arrangements be tested annually;

- Assessed central government response arrangements and in particular the provision of scientific and technical advice in the event of a nuclear emergency in the UK or overseas to ensure that COBR has one source of advice. It recommended that the Overseas Nuclear Emergency response plan be tested fully through the Nuclear Energy Agency International Exercise programme;
- Considered in some detail the response required for faults considered to be reasonably foreseeable and additionally the response required for 'beyond design basis' accidents and recommended that industry consider the planning assumptions for these. It also recommended that ONR should enforce a stronger testing regime which includes extendibility arrangements and overseas nuclear accident response; and
- It has continued work on capacity and capability of the Emergency Services including emergency exposures levels to ensure that the Fire, Ambulance and Police Services have a clear understanding of radiation exposure levels and the circumstances in which they can carry out their work. It recommended that emergency services and operators should liaise formally to determine emergency exposure levels.

The opportunities identified by NEPLG form part of a wider programme of work being taken forward by the Department of Energy and Climate Change (DECC). We are currently finalising the timelines for this programme and the work is being taken forward by DECC and other key delivery partners as a priority.

**Recommendation FR-6: The nuclear industry with others should review available techniques for estimating radioactive source terms and undertake research to test the practicability of providing real-time information on the basic characteristics of radioactive releases to the environment to the responsible off-site authorities, taking account of the range of conditions that may exist on and off the site.**

#### Action

The Office for Nuclear Regulation (ONR), the Met Office (MO), the Health Protection Agency (HPA) and the RIMNET team at the Department of Energy and Climate Change (DECC) are working together to further develop the capability to be able to respond quickly to any incident at a nuclear site anywhere in the world.

The objective of this capability is for the UK to be able to draw upon the collective resources and expertise of the operators, regulators and others, as necessary.

The work will build upon the existing arrangements in place for incidents in the UK whilst developing an appropriate basis and supporting procedures for overseas responses. ONR and UK operators will advise on the plant status and potential source terms, MO will consider the dispersion of materials in the atmosphere and

HPA will advise on critical groups, the most appropriate pathways and other dose factors.

Together they will provide an auditable means of assessing the potential impact of an incident on the UK or its citizens. Any results will be displayed using DECC's RIMNET system.

This work is being coordinated by DECC with input from other Government Department and Agencies, including GO Science. The aim is to produce an initial tool for use by Spring 2012.

**Recommendation FR-7: The Government should review the adequacy of arrangements for environmental dose measurements and for predicting dispersion and public doses and environmental impacts, and to ensure that adequate up to date information is available to support decisions on emergency countermeasures.**

#### Action

In the event of a radioactive release from a nuclear site, the operators are responsible for carrying out monitoring in the immediate vicinity with the Health Protection Agency (HPA) coordinating monitoring further afield; this information together with emergency plans is used for the immediate emergency response.

These arrangements are kept under review by the National Emergency Planning Liaison Group. There are a number of other initiatives in this area, including a review of the Radioactive Incident Monitoring Network (RIMNET), which is the UK Government's emergency management system for overseas nuclear accidents, which comes under the Department for Energy and Climate Change (DECC). It supports, in addition to its original function, the national level response to civil and military incidents that may occur within UK borders.

In addition, HPA, the Environment Agency (EA) the Scottish Environment Protection Agency (SEPA) and the Northern Ireland Environment Agency (NIEA) all carry out or coordinate routine environmental monitoring for radionuclides. In the event of a radiological emergency, this routine monitoring would be enhanced if necessary and used to provide information that would support later decisions on emergency countermeasures. The Met Office has the capability for providing atmospheric dispersion information in real time following any incident in the UK and worldwide. Met Office is part of a collaboration, coordinated by DECC, with contributions from the Office for Nuclear Regulation (ONR) and HPA to develop a tool for estimating the spatial distribution of radiation doses in real time following a radiation release in the UK or elsewhere. The different initiatives should ensure that information is available to support decisions on emergency countermeasures.

**Recommendation FR-5: The relevant Government departments in England, Wales and Scotland should examine the adequacy of the existing system of planning controls for commercial and residential developments off the nuclear licensed site.**

Action

The ONR included Dr Weightman's recommendation on planning controls around nuclear sites in their consultation response to the Government's proposed National Planning Policy Framework for England (NPPF). Work on the NPPF is ongoing and the recommendation will be considered further in that context.

Planning is a devolved matter and, as such, the Government's NPPF process only applies to England, however we will continue to work closely with our colleagues in the Devolved Administrations on this issue.

**Recommendation FR-8: The Government should consider ensuring that the legislation for the new statutory body requires ONR to be open and transparent about its decision-making, so that it may clearly demonstrate to stakeholders its effective independence from bodies or organisations concerned with the promotion or utilisation of nuclear energy.**

Action

The work that is currently taking place on the creation of a statutory ONR has at its heart the transparency of the regulator and its relationship with Government (including bodies concerned with the promotion or utilisation of nuclear energy).

The intention is for the statutory ONR's five year Strategy, annual plan, annual report and accounts to all be shown to Parliament as well as widely published by the statutory ONR itself. In addition, the Secretary of State will report to Parliament on any directions that he gives to the statutory ONR as well as the use of his powers such as making appointments to the statutory ONR Board. In addition, the statutory ONR will report every five years to Parliament on the functioning of the nuclear regulatory regime.

All of these measures, the creation of the statutory ONR's Board and giving the statutory ONR powers and duties over nuclear regulation in its own right (not currently the case), will lead to greater transparency. This will help to clearly show the statutory ONR's effective independence from anybody concerned with the promotion or utilisation of nuclear energy.

**CHRIS HUHNE**