



*Nuclear Free Local Authorities Steering Committee*

# information

**NFLA MEDIA ADVISORY – for immediate release, 14<sup>th</sup> December 2011**

## **NFLA and other groups submit reports noting major concerns over significantly increased marine discharges and aerial emissions from a proposed new nuclear reactor at Hinkley Point**

The Nuclear Free Local Authorities today submits detailed co-sponsored submissions to the Environment Agency over the marine and gaseous discharges which may be permitted from a proposed new nuclear reactor at Hinkley Point in Somerset. (1)

The submissions are co-sponsored by the groups Stop Hinkley, Friends of the Earth Cymru and CND Cymru. They have been developed by the independent marine pollution consultant Tim Deere-Jones (2) and the independent consultant on radiation into the environment, Ian Fairlie (3). The submissions have also been endorsed by Caroline Lucas MP (and the Green Party of England and Wales), Martin Caton MP, Paul Flynn MP and Jill Evans MEP.

The Environment Agency is seeking comments on the permitted levels of discharge into the marine environment and into the atmosphere from EDF's proposed new nuclear reactor(s) at Hinkley Point. The Infrastructure Planning Commission is also separately considering a 30,000 page planning application by EDF (known as NNB Genco for this application) for developing reactors at the site. Interim approval of the EDF 'EPR' reactor design has been provided today by the Office for Nuclear Regulation and the Environment Agency under its Generic Design Assessment process.

The key conclusions from Tim Deere-Jones's marine discharge submission are:

- The submission has involved a thorough review of NNB Genco submissions relating to radioactive waste liquid discharges from the proposed Hinkley C reactors, and concludes that there are a number of highly significant weaknesses and flaws in aspects of NNB Genco's understanding of the behaviour and fate of those radioactive wastes, their proposed management of the discharges and their proposed sampling and monitoring programmes.
- The submission further identifies a **failure to address issues arising from climate change and the risks of severe flooding / inundation events**
- The submission concludes that, as a result of these highly significant weaknesses, **there are major data gaps about near field and far field radioactivity concentrations along the entirety of the Bristol Channel coast** and about the potential impact of Hinkley C (and Oldbury B) proposed radioactive waste discharges on the populations' resident in English and Welsh coastal zones.
- More consideration should be given to improving and making **FULLY** transparent the monitoring programme. It is definitely not enough that EDF propose to piggy back on the existing regime as that regime is inadequate and flawed. The status quo does not give the public an opportunity to protect their health through being informed on daily discharge levels nor does it allow the public to hold both site operators **AND** the regulators to account.
- In the context of these flaws this submission concludes that the proposed development in its current form should be rejected outright.

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Furthermore, the key conclusions from Ian Fairlie's gaseous discharges submission are:

- According to the Environment Agency's EPR Assessment Report in 2009, it is expected that each year the proposed EPR-type reactor would emit to air 500 GBq (4) of tritium; 350 GBq of carbon-14; 800 GBq of radioactive noble gases and 50 MBq of radioiodines. These are relatively large amounts of radioactivity. **If these releases were to occur, they would increase Hinkley B's current gaseous emissions by 20% (H-3) to 30% (C-14).**
- The largest aerial emissions are usually of tritium in the form of tritiated water vapour, i.e. radioactive water. In recent years, many official reports have discussed the hazards of tritium - the radioactive form of hydrogen. In the past, this isotope had been regarded as only weakly radiotoxic: this view is gradually changing among governments and international agencies concerned with radiation exposures.
- In November 2011, German data revealed large spikes in radioactive gas releases during the refuelling of Nuclear Power Plants. The Gundremmingen reactor in Southern Germany (a boiling water reactor) emitted much larger amounts of radioactive noble gases during refuelling than were emitted during normal power operation throughout the rest of the year. According to the International Physicians for the Prevention of Nuclear War (IPPNW) in Germany (5), the normal emission concentration during the rest of the year is about 3 kBq/m<sup>3</sup> but during inspection/refuelling this concentration increased to ~700 kBq/m<sup>3</sup> with a peak of 1,470 kBq/m<sup>3</sup>. Nuclide emissions during the period of refuelling were about 65% of total annual releases. It is likely that noble gas concentrations can be used as a proxy for other gaseous emissions, including tritium and iodine releases.
- Higher doses from these nuclide spikes go a long way to explaining the increased incidences of child leukaemias near Nuclear Power Plants shown by the German Government's KiKK findings. In the light of this German data, it is recommended half-hourly emissions data from all UK reactors should be disclosed and that the issue of childhood cancer increases near Nuclear Power Plants be re-examined. The development of new nuclear reactors should be completely curtailed until such research is undertaken.
- The submission recommends that all Nuclear Power Plant operators should be required (via their Authorisations) to inform nuclear regulators of the precise dates and times when they propose to open up their reactors for refuelling. And Nuclear Power Plant operators should indicate to regulators whether they can restrict their depressurisations to night-time (when most people are in their homes) or to times when the wind is blowing out to sea. The UK National Dose Assessment Working Group guidance, (para 4.4) currently states "...this requirement is not imposed because it could result in undue constraints on operational practice". **This is unfortunate: public health considerations should be considered more important than operational convenience.**

NFLA Chair Councillor Brian Goodall said:

"The NFLA has co-operated with local groups in the South West of England and South Wales to sponsor a detailed submission to the Environment Agency because it is highly concerned of the public health consequences of developing a new nuclear reactor at Hinkley Point in Somerset. The submissions by Tim Deere-Jones and Ian Fairlie quite clearly indicate that our concerns are not only justified, but mean that new nuclear build should not take place at Hinkley Point or other sites for sound environmental reasons. I sincerely urge the Environment Agency to consider in detail this co-sponsored submission and reject the development outright."

Ends

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For further information and interview opportunities with Tim Deere-Jones, Ian Fairlie or the groups that have co-sponsored this submission, contact Sean Morris, NFLA Secretary on 00 44 (0)161 234 3244 or 00 44 (0)7771 930196.

Notes for editors:

- (1) The NFLA submissions to the Environment Agency are attached.
- (2) Tim Deere-Jones is an independent marine pollution consultant who lives in Pembrokeshire. He has worked previously for Greenpeace International, Friends of the Earth, Marinet and the World Wildlife Fund. He has produced a number of reports and given presentations at NFLA events. He is a member of the Nuclear Consulting Group.
- (3) Dr Ian Fairlie is an independent consultant on the effects of radioactivity in the environment who lives in London. He is the former scientific secretary to the UK Government's Committee Examining Radiation Risks from Internal Emitters (CERRIE). He has worked on occupational health hazards for the Trades Union Congress and has been a radiation advisor to Greenpeace Canada.
- (4) A becquerel (Bq) is a unit of radioactivity: it means one nuclear disintegration (or decay) per second. Each disintegration results in the emission of radiation. One GBq means one billion disintegrations per second, and one MBq means one million disintegrations per second.
- (5) Credit goes to Christine Kamm MP in Munich, and the Green Party in Germany for obtaining this data, and to Dr Alfred Korblein in Nuremburg and scientists in IPPNW Germany for analyzing it.

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