

# *Nuclear Free Local Authorities* **briefing**



**Date:** 17<sup>th</sup> April 2013

**No.109**

**Subject:** Leak of nuclear reactor on board HMS Tireless submarine

## **1. Introduction**

This Nuclear Free Local Authorities (NFLA) Policy Briefing provides member authorities with an overview of an incident involving the British nuclear powered submarine 'HMS Tireless'.

This briefing has been developed by the NFLA Secretary with assistance and the full co-operation of Peter Burt of the Nuclear Information Service (NIS) and Dr David Lowry, an independent nuclear policy consultant who provides policy advice to Paul Flynn MP, who has been asking questions on the matter in the House of Commons. An approach has also been made to an Irish TD to ask similar questions in the Dail. This incident raises a number of concerns for coastal local authorities in Scotland, Northern Ireland, the Republic of Ireland, Wales and England and should be of interest to national and devolved Governments, councillors, emergency planning officers, public health and environmental health officers.

## **2. Background**

According to reports in the British media, HMS Tireless, one of the Royal Navy's nuclear powered fleet submarines, experienced a leak from its reactor cooling system during an exercise off the west coast of Scotland in early February 2013 (<http://bit.ly/ZC9J1N>). UK Defence Ministers were notified of the incident on 5<sup>th</sup> February and the damaged submarine returned to its home port at HM Naval Base Devonport in the south west of England. The submarine almost certainly returned to Devonport by travelling through the Irish Sea – the most direct route between the two bases.

The UK Government has said little in public about this incident, although it has given short answers to two Parliamentary Questions which have been tabled by Members of Parliament on the matter. Philip Dunne, Minister for Defence Equipment, Support, and Technology, stated: "The recent coolant leak onboard HMS Tireless was a very small quantity and was caused by a very small defect in a system within the sealed reactor compartment of the submarine. There was no risk to the public, environment or the crew" (<http://bit.ly/VBOdrG>). The Minister did not comment on whether the submarine travelled through the Irish Sea to Devonport, saying only that: "The submarine was in international or UK territorial waters throughout her journey to Devonport, where there is a specialist submarine maintenance facility. There was no requirement to engage with or to inform the Government of the Republic of Ireland" (<http://bit.ly/12s3ZcE>).

HMS Tireless was launched in 1984 and is close to the end of its life. In May 2000 the submarine was stranded in Gibraltar for 12 months while work was undertaken to repair cracks in pipe work of the reactor cooling system. It is not known whether the current problem is similar to or related to the pipe work cracking which occurred in 2000, nor whether it could be a more generic problem

**THE LOCAL GOVERNMENT VOICE ON NUCLEAR ISSUES**

c/o Town Hall, Manchester, M60 3NY

Tel: 0161 234 3244 Fax: 0161 274 7397 E-Mail: [s.morris4@manchester.gov.uk](mailto:s.morris4@manchester.gov.uk) Website: <http://www.nuclearpolicy.info>

affecting the Royal Navy's other 'Trafalgar' class submarines, although Ministers have stated: "The impact of this defect on other submarines has been fully considered and, accordingly, it is not deemed necessary to carry out additional maintenance or inspections as a result".

On the basis of the very limited information available about this incident, it appears that the reactor cooling system may have experienced a leak before breakage. A leak before breakage is a small creeping leak in pipe work which, if left unchecked, will gradually expand and eventually break, resulting in a catastrophic failure of the cooling system. Operating the submarine under such circumstances pose a risk that such a failure will occur, leading to a reactor accident.

### **3. Concerns about this incident**

Nuclear Free Local Authorities has the following concerns over this incident:

- The damaged submarine HMS Tireless was apparently moved to Devonport rather than the nearer submarine at Faslane, despite the risks that this posed.
- It is not clear what, if any, risk analysis was conducted before the submarine was moved, nor what precautions were taken to militate against any identified risks.
- The Government of the Republic of Ireland was apparently not notified or consulted about the movement of the damaged submarine through the Irish Sea.

Along with questions already tabled about this matter which have been asked in the House of Commons, the NFLA is asking members of the Irish Parliament to table a question for written response in the Dail to the Minister for the Environment, Community, and Local Government on behalf of Nuclear Free Local Authorities to establish the Irish Government's position on these concerns. The NFLA has a scheduled meeting with officials from the Irish Government in early May on nuclear policy matters and will seek consideration of this issue within the meeting.

### **4. Euratom Treaty**

Article 34 of the Euratom Treaty states: "Any Member State in whose territories particularly dangerous experiments are to take place shall take additional health and safety measures, on which it shall first obtain the opinion of the Commission".

The definition of a 'dangerous experiment' is wide and covers activities included within military nuclear programmes as well as civil programmes. In the mid 1980s, France undertook a number of nuclear weapon tests at Mururoa in the south Pacific. As Mururoa is French sovereign territory, it is covered by European Union laws. Pitcairn Island, one of the nearest inhabited islands to Mururoa, is a British protectorate and also subject to European Union laws. Concerns over French nuclear tests at Mururoa and their impact on Pitcairn Island were raised at the time with the European Commission in the context of Article 34 of the Euratom Treaty (<http://bit.ly/VBQ13L> Paragraphs 72-77 and <http://bit.ly/1032xIk> Pages 20-27).

Written questions have been asked to and answered by the European Commission, also in relation to Article 34 of the Euratom Treaty, by Irish Green MEP Nuala Aherne over the radiological impact on Spain of French nuclear weapons tests which were conducted in the atmosphere over Algeria's Sahara Desert at Reganne in 1962 following concerns years later that the desert winds had blown radioactively contaminated sand across the Mediterranean Sea to Spain (<http://bit.ly/10bqFfL> Question 109/33).

Nuclear Free Local Authorities considers that the movement of the damaged submarine HMS Tireless falls within the definition of a 'dangerous experiment', posing potential dangers to Ireland's coastal waters and populations on the east coast of Ireland. It recommends that the government should inquire of the European Commission what submissions were made to the Commission under Article 34 of the Euratom Treaty relating to the movement of the submarine.

## **5. Other recommendations and further actions**

NFLA members are asked to note this report and discuss its content at the next meeting of the NFLA Steering Committee.

The NFLA Secretariat will continue to liaise with Nuclear Information Service and other groups, MPs and TDs concerned about this issue. The matter is part of the agenda for a meeting with officials of the Republic of Ireland Environment Department.

As noted, the NFLA will follow-up this matter with both the UK and Republic of Ireland Governments and send this briefing to the devolved Welsh, Scottish and Northern Ireland Governments for consideration. NFLA member authorities are encouraged to raise any local concerns they have with the appropriate authority.

### **Annex – NFLA letter to the Plymouth Herald**

The NFLA Chair has written the following letter to the Plymouth Herald to raise the issue for local communities around the Devonport base:

#### **Serious questions need to be asked of HMS Tireless leak**

“I completely agree with local Plymouth submarine campaigner Ian Avent in his assessment of the reported nuclear reactor leak on HMS Tireless (Minister insists leak in reactor of nuclear submarine was 'very small', Plymouth Herald, 5th March). The Defence Minister may wish to give a bland reassurance to the public, but nuclear reactors on submarines should never leak and, even if this a 'very small' leak, it is of real public concern. I am also concerned with the decision to tow the submarine from Faslane down the Irish Sea for repair at Devonport. Why could it not have been repaired at Faslane? What were the environmental and safety risks of such a transport? Why wasn't the Irish Government informed of this incident, given it went close to its territorial waters? The local and wider community should be concerned about this incident and we need proper and full answers to it from the Government as a matter of urgency. Such safety lapses and the wider environmental consequences of a nuclear reactor leak on a submarine do not bear thinking about.”