

**SotonSafe Plan:  
Proposals to reduce the size of the Pre-planned Counter Measures Zone**

**Comments from Solent Coalition Against Nuclear Ships (SCANS)**

**Southampton City Council  
Officer Decision Making meeting (Economic Development), 21st September 2009**

In May 2009 the Royal Navy wrote to Southampton City Council to advise the council that, following a hazard identification and risk evaluation exercise, the Navy wished to make changes to planning zones and emergency responses relating to the berthing of nuclear powered submarines in Southampton docks. SCANS has a number of concerns about the Navy's proposals, and particularly the proposal to reduce the size of the pre-planned countermeasures zone for the 'SotonSafe' emergency plan for dealing with an accident involving a nuclear powered submarine in Southampton.

**1. Justification for submarine visits**

In the past, Southampton City Council has requested that nuclear powered submarines should not visit Southampton docks, and this position was confirmed at the Council's Overview and Scrutiny Management Committee meeting on 10th September 2009 when committee members voted to express a preference that nuclear powered ships should not visit Southampton.

The Council's Emergency Planning and Business Continuity Manager has stated in correspondence on this issue that the Royal Navy has an absolute right to visit Southampton docks. However, this does not mean that Southampton City Council has any obligation to facilitate submarine visits. Submarine berths at other commercial ports such as Cardiff, Hull and Tilbury were closed in the 1980s and 90s because local authorities, concerned about public safety implications, declined to co-operate with the Navy in allowing submarine visits. Councils at Swansea and Liverpool have also successfully opposed the opening of submarine berths in docks in their cities.

Naval dockyards at nearby Portsmouth and further south at Devonport provide ample safe anchorage on the South coast for submarines. It is difficult to see the reasons why the Navy need to use Southampton as a berth for nuclear powered submarines, other than for public relations purposes. The pressure for submarines to use Southampton docks appears to be a political rather than an operational one. SCANS does not consider that the Navy's wish to use Southampton docks as a submarine berth justifies the risks of bringing a nuclear powered submarine and its reactor into a densely populated urban area.

Under European law (European Directive 96/29/Euratom) and UK law (Justification of Practices Involving Ionising Radiation Regulations 2004) practices involving the use of ionising radiation require a formal justification to demonstrate the economic, social or other benefits they bring in relation to the health detriment they may cause (although defence uses of radiation are exempt from this legislation, it is Ministry of Defence policy to meet the requirements of safety and environmental legislation). It is difficult to see how submarine visits to Southampton can be justified in this context.

**Recommendation:** Southampton City Council should defer a decision on the size of the pre-planned counter measures zone and the need to update the SotonSafe plan until the Royal Navy has provided a clear operational justification to explain why submarines need to berth at Southampton docks.

## **2. Justification for changes to the pre-planned counter measures zone.**

SCANS considers that insufficient evidence has been provided to show that a decrease in the size of the pre-planned counter measures zone is justified.

Emergency counter measures zones surrounding nuclear installations are identified on the basis of a safety case and hazard assessment for the installation, based on the largest foreseeable release of radioactive material from a site. Safety cases and hazard assessments are reviewed every three years, and can change if:

- the analytical methods underpinning the hazard assessment become more rigorous: as a result of greater knowledge about how nuclear plants operate, and / or development of a revised accident scenario.
- Additional safeguards to protect the public are put in place.

It does not appear that any additional safeguards have been put in place to protect the public in the case of an accident involving a submarine in Southampton, and in September 2006 Cabinet was informed that “Project Manager Nuclear (Navy) has advised that there are no advances in technical knowledge that impact upon the plan” (Item C3a: SotonSafe (Z-berth) Nuclear Accident Response Plan). However, a paper from the Defence Equipment and Support Nuclear Emergency Arrangements Group which has been prepared for local authorities states that revised assessments of potential accidents and their consequences have been carried out by the Ministry of Defence, and that as a result a 1.5 km zone pre-planned counter measures zone around a submarine berth has been identified as acceptable by the Health and Safety Executive. However, no technical justification has been provided to explain why HSE and the MoD consider that the zone can be reduced from 2 km to 1.5 km. This decision, made on a generic basis at a national level, was not subject to public consultation and does not appear to have undergone independent scrutiny by others outside the government nuclear establishment.

SCANS is concerned that this decision does not stack up with known facts about nuclear reactor safety. The Royal Navy's submarine fleet is aging, with the youngest submarine currently in service now 22 years old. As reactors get older the aging processes caused by continuous exposure to high levels of radiation cause materials to become brittle and increase the risk of reactor failure. Older reactors have a higher content of radioactive iodine, created by the decay of their uranium fuel, which poses a particular risk to human health because it can be easily absorbed into the body and concentrated in the thyroid gland.

SCANS fears that the decision to reduce the size of the pre-planned counter measures zone has been driven primarily by a desire to cut costs and reduce labour requirements, rather than to preserve public safety. In the event of an accident involving a submarine in Southampton, the Royal Navy would be required to distribute prophylactic potassium iodide tablets to households within the pre-planned counter measures zone. However, observation of recent emergency exercises simulating the distribution of potassium iodide

tablets has shown that the Navy would find it difficult, if not impossible, to provide tablets to all households within the 2 km zone in a timely manner (see SCANS paper submitted to Cabinet on 18th September 2006).

The report from the Emergency Planning and Business Continuity Manager to the officer decision making meeting acknowledges that adoption of a smaller zone would allow the number of households entitled to receive the tablets would be reduced from “some 9202 residential addresses” to approximately 3500 residences. Our concern is that, rather than provide the resources to ensure that tablets can be effectively distributed to all homes in the zone, the Ministry of Defence has decided to resolve the problems it faces by reducing the size of the zone. The fact that the number of homes within the radius of the new zone has apparently not been precisely identified does not give us confidence that the emergency plan has been prepared to a high standard.

The report of the Emergency Planning and Business Continuity Manager points out that amending the size of the planning zone would allow resources to be directed towards other more reasonably foreseeable risks and threats such as pandemics and flooding. As the SotonSafe plan would still have to be prepared and maintained by the Council, SCANS does not consider that the savings in resources to the Council by reducing the size of the zone would be significant. A request to the Navy to stop berthing submarines in Southampton would achieve the same goal far more effectively.

**Recommendation:** Southampton City Council should ask the Ministry of Defence and the Health and Safety Executive for a technical justification for the proposed changes to emergency planning arrangements and the pre-planned counter measures zone. The Council should also ask the Health and Safety Executive to submit its decision to external peer review. A decision on amending the size of the counter measures zone should be deferred until satisfactory responses have been received from the two authorities.

### **3. Consultation on proposed changes to the pre-planned counter measures zone.**

SCANS is concerned that public consultation on the proposal to reduce the size of the emergency counter measures zone does not appear to comply with good practice as outlined in the code of practice on consultation agreed between Southampton City Council and the Southampton Compact. Information about proposed changes to the counter measures zone was casually mentioned in a covering letter accompanying an emergency planning leaflet distributed to homes in the counter measures zone. Nothing in the letter explained that it was being treated by the Council as an invitation to respond to a formal consultation exercise. No background information was provided to explain the rationale behind the proposed changes (a point made by more than one respondent); no clear questions were asked for comment; and no response form was provided. Under the circumstances, it is not surprising that there was a low response rate to the letter.

Even though the feedback in response to the Council's letter was low, we note that all respondents who replied to the letter expressed concern or opposition to submarine visits to Southampton. Although the report to the officer decision making meeting suggests that some responses showed support for visits, none of the correspondence in the report accompanying the report can reasonably be interpreted as supporting submarine visits or the proposal to reduce the size of the pre-planned countermeasures zone.

It is not possible for us to comment on consultation with statutory agencies as no correspondence relating to this element of the consultation process or the views of statutory agencies has been provided with the report to the officer decision making meeting.

**Recommendation:** Southampton City Council should repeat consultation on the proposal to reduce the size of the pre-planned counter measures zone. The reason for the proposed change and the advantages and disadvantages of changing the zone should be clearly explained. Southampton residents living outside the zone should be permitted to give their views as part of the consultation exercise. To help aid public understanding of the issues the views of statutory agencies should be published and the Royal Navy and Health and Safety Executive should be invited to explain the need for a change at a public meeting hosted by the Council.

#### **4. Conclusion**

There is no evidence that proposals to reduce the size of the pre-planned emergency planning zone for nuclear submarine visits to Southampton have been based on a sound technical case. Southampton City Council would therefore be unwise to reduce the size of the zone without seeking further information from the Ministry of Defence and Health and Safety Executive and consulting more widely with Southampton residents.

As the Emergency Planning and Business Continuity Manager notes in his report to the officer decision making meeting, all costs associated with the SotonSafe emergency plan are covered by the Royal Navy. The Royal Navy has also intimated that it would support the City Council whatever its decision – to reduce the size of the zone or to maintain the current 2 km radius. The Council would therefore seem to be taking an unnecessary risk in reducing the size of the zone when it could, with no negative consequences, adopt a more prudent and precautionary approach by retaining existing arrangements and maintaining the status quo.