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SUBMARINE Z-BERTHS IN LOCH EWE AND BROADFORD BAY

Highland Council are holding two public meetings, one on January 20th (Broadford) and also on the 22nd of January (Aultbea), to explain to the to the 2053 residents in those areas how to protect themselves in the event of a nuclear accident at the nuclear submarine z-berths in those areas.

They will be given information leaflets explaining the countermeasure the public can take to protect themselves, e.g. sheltering, closing windows, and the countermeasures that will be adopted by the various emergency services to minimize the harmful effects of ionizing radiation on the residents of the areas concerned.

During the week commencing 26th of January, the Royal Navy will return to the areas concerned and hand deliver potassium iodate tablets to each home within two kilometers of a z-berth, with instructions for use in the event of a nuclear accident. There are two z-berths in Loch Ewe

Potassium Iodate tablets when taken, result in the thyroid gland being saturated with the non radioactive iodine in the tablet, and thus minimize the uptake of radioactive iodine which could result in thyroid cancer. For maximum effect they should be taken as soon as possible, ideally a few hours before the nuclear accident, but certainly not later than a few hours after the accident.

These emergency planning arrangements to protect local populations from nuclear accidents are a requirement of The Radiation (Emergency Preparedness and Public Information) Regulations 2001, otherwise known as the REPIR regulations.

The W.A.R action group have investigated this emergency plan, the REPIR regulations, and listed below are statements made by various government agencies and other bodies with regard to the emergency plans, and the consequences of the REPIR regulations.

1. W.A.R asked Dr John Wrench, Director of Public Health and Policy at NHS Highland, if there had ever been clinical trials of the potassium iodate tablets to assess their effectiveness in preventing cancer in persons exposed to ionizing radiation. The reply in a letter dated 23rd of December from Dr John Wrench was that "there never has been any such trial".
2. In a report produced by the National Radiological Protection Board, Volume 12 No 3 2001, page 15, it states that potassium iodate tablets provide no protection against the release of radionuclides other than radioactive iodine. It also goes on to say that even with radioactive iodine, the tablets only minimise damage to the thyroid, and "it provides no protection against external radiation by this radionuclide (i.e. from the plume or from contamination on the ground)."

The report also states that the risk of cancer resulting from exposure to radioactive iodine are age dependent, with the young and the elderly being at much greater risk. Within the 2 kilometer zone at Aultbea there is both a primary school, a nursing home for elderly people, as well as a medical surgery.

3. Highland Councilors (Roy MacIntyre - Gairloch, Jean Urquhart - Loch Broom) have said that in the event of a nuclear accident, emergency services will not be permitted to enter the two kilometer zone around the z-berth, because they have rights not to be exposed to such danger. They said this is the reason that people within the two kilometer zone are being pre-distributed with the tablets, so that they can take some measures to protect themselves.
4. Steve Conway, SEHD National Emergency Planning, explained in a telephone conversation on Friday the 19th of December 2003, how people within the two kilometer zone will be told that there has been a nuclear accident. He said that arrangements had been made with TV and radio stations to make emergency announcements that a nuclear accident had taken place, and that further arrangements had been made with mobile phone companies to activate mobile phones.

Apart from all the likely health issues, the consequences of such a broadcast on the national media would have devastating effects for the local economy. Tourists would not want to visit the area for a very long time to come, and the business losses as well as personal losses would be immense.

What would happen if people didn't have the TV or radio on is not clear, or indeed if the nuclear accident happened at say, 2am.

5. The Association of British Insurers have said that it will not be possible to get insurance, personal, business, or public liability to cover the losses associated with nuclear accidents.

However, the REPIIR regulation 12 allows the local authorities to charge the MOD a fee for their work in connection with the preparation of emergency plans, but there are no provisions in the regulations which would allow claims against the MOD by the general public for damage to health, loss of property, loss of income, or to cover public liability claims against hotels etc.

6. REPIIR regulation 16 (1) require the MOD to ensure that all members of the public who could be in the area at risk from a nuclear accident, are given, in an appropriate manner, without them having to ask for it, the following information;
 - a) Basic facts about radioactivity and its effects on persons & environment.
 - b) The various types of radiation emergency covered and their consequences for the general public and environment.
 - c) Emergency measure envisaged to alert, protect and assist the general public in the event of a radiation emergency.
 - d) Appropriate action to be taken by the public in a radiation emergency.
 - e) The authorities responsible for implementing the emergency measures.

This regulation refers to members of the public only, and makes no distinction between residents who live in the area at risk, those who live elsewhere but work in the area at risk, or tourists who arrive to stay in the area at risk.

In the spring/summer/autumn months there are huge numbers of visitors, and this regulation implies, quite rightly of course, that tourists must also be protected as locals are, by being given on their arrival, protective information re sheltering, closing windows etc., and the correct use of potassium iodate tablets. This is very likely to have an adverse effect on tourism, on the other hand it is obviously right that tourists receive the same level of protection as the locals.

7. In a report prepared by John Large, a nuclear physicist of Large and Associates, and presented to Southampton Town Council regarding the z-berths in Southampton, the following statements were made;

The Mod have defined the radiological consequences for three accident categories.

1. Fuel Clad Failure Local Gamma shine only.
2. Loss of coolant, core melt & fission products into the reactor compartment. Gamma shine up to 400m. 24 hour seepage, mainly iodine and other fission gasses.
3. Loss of coolant, core melt, hydrogen burn & loss of hull containment. Gamma shine > 550m large high energy fission product release. The time span 10 to 20 minute blowout following initial triggering malfunction.¹

Bryan Downie, head of emergency planning at Highland Council said in a telephone conversation that a nuclear accident would develop slowly over time, and that would give the emergency services lots of time to mobilize and assist the local population. Therefore it would appear there is no provision to help the local population rapidly in the event of a category three nuclear accident.

8. Regulation 18 states that The Secretary of State for Defence can, by a certificate, exempt the military from all of the REPIR regulations, In such a scenario normal health and safety regulations need not be adhered to.

Also In a letter dated 24th of December, John E Hicks at the Health and Safety NSD's Directors Office in London stated that the MOD had applied to the HSE for exemption from releasing specific information on the grounds of national defence, information which, for example, specifies how many persons are at risk, and the doses of radiation they will receive, and that that request was acceded to by the HSE.

¹ The category 3 scenario comprises a loss of primary coolant via failure of an un-isolable section of the primary circuit, rapid boiling of the water remaining around the fuel core, and a fast clad (zirconium alloy) steam reaction which exothermally liberates hydrogen with the sequence moving on to a hydrogen burn at about 10 to 20 minutes, and which is sufficiently energetic to rupture the hull section of the reactor compartment. In another sequence the fuel core melts at about 1700°C at 2 to 3 minutes into the scenario, the molten fuel drops into a pool of water remaining in the bottom of the reactor pressure vessel causing a violent metal-steam explosion which generates a very high pressure pulse sufficient to rupture the hull.

9. In conclusion W.A.R has formed the opinion that,
- a) the application of the REPPIR regulations do not adequately protect members of the public in the event of a nuclear accidents for the aforementioned reasons.
 - b) The effort expended on these non-effective and unnecessary regulations are a waste of public money.
 - c) the activation of the REPPIR regulations for a nuclear accident at the z-berths in the Loch Ewe area will have a very damaging, and very long lasting effect on the economy of Wester Ross.
 - d) the authorities should have an open and frank discussion with the communities affected, and place all the information they have available to them in planning for nuclear accidents in the public domain. They should listen to the feedback they receive from this process, either to improve, or, perhaps, abandon their plans as unworkable.
10. On the 12th of January, W.A.R will launch a website to inform the public about developments in the emergency plans, this is the same day that Highland Council publish their emergency plans on their own website. Appropriate advertising will be employed to bring the W.A.R website to the public's attention in the areas concerned.