From: [redacted]
To: Wylfa Newydd
Cc: owena@parliament.uk; gwynne.jones@anglesey.gov.uk; Correspondence.Lesley.Griffiths@gov.wales
Subject: Wylfa B Initial Assessment of Principal Issues
Date: 05 November 2018 12:03:25

FAO: Frances Fernandes

Re: Wylfa B Initial Assessment of Principal Issues

Dear Frances Fernandes

I am writing to you in your capacity as Lead Member of the Panel of Examining Inspectors. We attended the initial consultation on Wylfa B in Anglesey on Tuesday 23rd October. Fifteen minutes before the meeting started, we were given a handout that outlined the Initial Assessment of Principal Issues that the panel wished to pursue.

During the meeting the panel asked whether there were any other principal issues that should be considered. Unfortunately, because of the short time we were not able to give a considered reply on the day. However, we now think that there are important issues that need to be addressed by the panel. These are:

1. The impact of nuclear accidents on the surrounding population and measures taken to reduce such an impact.
2. Radiation protection and the need to install appropriate monitoring systems so as to alert the population when radiation releases occur.
3. The impact of the long term increase in sea level rise on the design and operation of the plant.
4. The planning conditions needed to minimise contamination of the Wylfa B site once operations have ceased.

If any one or more of these suggested important issues are not part of your planning remit, we will be grateful if you could tell us who is considering these aspects of the Wylfa B proposals.

Kind regards
John Urquhart
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Subject: National Standards for Radiological Emergencies

Dear Francesca

Please can you forward this email to Graham, who was chairing the BEIS meeting on Friday? Thank you.

The BEIS meeting on Radiological Emergencies last Friday was useful but also created new questions which I am sure your department is working on. One of my major concerns is the need for national standards for radiological emergencies. The 74-page radiological emergency paper we referred to (see reference 1. below) seemed to imply that much of the work associated with safety standards should be devolved to local authorities. This seems to me to be entirely inappropriate given the present financial circumstances of many local authorities and their lack of scientific expertise. Rather like asking local authorities to negotiate with operators on the safety standards for cladding on buildings without proper oversight by national authorities.

I noticed in the document that the emergency reference levels as such have been abolished and will be subject to negotiation between the operator and local authorities but surely there has to be absolute standards for the rate of release of radioactivity from any nuclear site. For example, if monitors on the site boundary were recording one milligray per hour this would be 10,000 times the natural gamma background however there is nothing in the document that addresses this question of how unusual levels of radioactive emission should be dealt with promptly, nor is there any mention of the essential role of the media in that situation.

In principle, the idea of a lead authority is sensible but it would be more appropriate to consider it at a regional level. For example in the case of Hinkley Point, West Somerset Council or any other councils it will amalgamate with, would not have the resources to carry out in-depth analysis of emergency plans. On the other hand Bristol, which is downwind of Hinkley Point, may have both the motivation and resources to deal with a comprehensive plan. In any case, as we have seen in the pattern of radioactive fallout in the UK after the Chernobyl nuclear accident, there is no guarantee that the nearest authority to a nuclear power plant will be most adversely affected, particularly because of the significance of rainfall creating washout of radioactive debris.

The radiological impact of the Chernobyl nuclear accident in the UK was comprehensibly examined by the Met Office in their paper (see reference 2 below from the Met Office, which should be required reading for every emergency planning officer).

One of the curious features of nuclear accidents so far is that they always appear to be major accidents. This may be because minor accidents are brushed under the carpet or that inevitably a minor problem escalates into a major problem. In either case, it is difficult to see why a radiological emergency at a nuclear site should be of concern only to the neighbouring local authority.

When I researched the question of safety standards, I learned that in the 1990s there was general agreement between local authorities that the alert level on a nuclear facility site boundary should be not more than 1.8 times natural background, i.e. about 180 nanograys per hour. However in the radiological emergency document there is only reference to cumulative dose, which of course is difficult to predict.

The umbrella organisation that highlighted the question of safety standards was called LARRMACC (Local Authority Radiation and Radioactivity Monitoring Advice and Collation Centre), which can be Googled, and it would seem that the revival of such a body representing local authorities but having its own independent source of finance would be advantageous to all parties. Bearing in mind that the proposed new build nuclear power plants are considered under major national infrastructure plans costing billions of pounds, the odd million or so to finance such a body on safety standards would not come amiss.

Best wishes

John Urquhart

1: [redacted]

2: Smith F & Clarke M Met Office Scientific Paper No 42 HMSO London 1989 ISBN 011 400358 0