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**First Minister of Wales**

Rt. Hon. Mark Drakeford  
Welsh Government  
5th Floor  
Tŷ Hywel  
Cardiff Bay  
CF99 1NA

27 May 2020

Dear First Minister,

We, the undersigned, write as representatives of the thousands of members of our organisations who are also ordinary members of the public concerned about the state of the environment and about securing a healthy future and a sustainable future for their families and children.

We wish to remind you of your obligations to uphold those aspirations as embodied in the Well-being of Future Generation (Wales) Act 2015 and, moreover, to abide by the law, in this case the Environment (Wales) Act 2016 which requires you to take uncertainties into consideration when assessing environmental impact. We consider that you and the Senedd Cymru are in danger of failing those responsibilities in determining the application by Electricité de France to dredge a further 600,000 tonnes of mud from Severn Estuary sediment adjacent to the Hinkley nuclear site and dump it on Cardiff Grounds. This letter seeks your reassurance that you will take only actions which demonstrate that the Senedd recognises its responsibilities and that you will observe them in respect of the mud dump application process.

There are several compelling reasons why we oppose the granting of a licence to facilitate the proposed dump:

1. Past activities at the Hinkley nuclear site have almost certainly resulted in the dispersal of plutonium and other radioactive substances on land and in the Severn Estuary in the area adjacent to the plant. These carcinogenic materials are highly likely to be present in the mud EdF wants to dump on the north side of the estuary, close to Cardiff with a population of 350,000 people.
2. Well-documented literature indicates that, as happens at Sellafield in Cumbria, radioactive particles from nuclear facilities are re-suspended by the action of currents, the sun and the wind as well as by wave action in areas of 'white water'. Particles which can be re-mobilised by even gentle breezes are known to travel long distances inland. Once re-suspended, tiny particles of uranium and plutonium can easily be ingested or inhaled adding to the risk of cancer, leukaemia and congenital malformation at far higher rates than government advisers

and the nuclear industry admit. An accessible account of the science is in a report "*Radiation and reason: The impact of science on a culture of confusion*" at <http://www.llrc.org/children.htm>. At the very least, it identifies substantial uncertainties over the official and industry view of radiation risk.

3. The action of dredging and relocating the material will cause the disturbance of potentially contaminated silt over a wide area. This could lead to the re-suspension of carcinogenic material over the long term in silt which is not associated with the dump itself. The long-term consequences of the dredging operation are therefore unknown but are potentially harmful to health.
4. Disposal of material which has not been adequately assessed for content of plutonium and other alpha-emitting materials is highly irresponsible and represents a potential health risk for thousands of people in Cardiff and beyond.

We therefore respectfully ask you to confirm that you will:

- Ensure that the sampling programme is expanded so that more core samples are taken from the Hinkley site itself, on the shoreline, in the estuary, and in all the locations identified in the RIFE reports for 2016, 2017 and 2018 where Americium 241 levels have increased as a result of dredging associated with Hinkley Point C; and that you will ensure that they are analysed using techniques capable of revealing the presence or confirming the absence of particles and that the results of those analyses are published as soon as possible;
- Comply with the requirements of the Environment (Wales) Act 2016 and acknowledge that the uncertainties in the science of health impact from internal alpha radiation means that new evidence such as that contained in the Children with Cancer UK-sponsored report referred to above is taken into full account;
- Appoint an Expert Group which reflects the requirements of the Explanatory Note on Section 4 of the Act, paragraphs (c), (d) and (e), which state the need for "*working with appropriate sectors of society, with decisions being made in consideration of the evidence and information gathered from relevant stakeholders and different sectors of society, including ... the public.*"

We gather that Natural Resources Wales has received 151 responses to their Consultation, NRW SP1914, on this matter. It is vital that all of these are reviewed and responded to by the independent Expert Group.

This will require the appointment to the Expert Group of people with a broad knowledge of the debatable issues surrounding the adverse health impacts, including cancer, which can result from exposure to ionising radiation in the environment. It is particularly important to consider internal emitters that have been inhaled or ingested. We request and recommend that at least four people from our list below are appointed.

People recommended for inclusion in the Expert Group.

Tim Deere-Jones [timdj@talktalk.net](mailto:timdj@talktalk.net)

Hons Graduate of Cardiff University Department of Maritime Studies: Field research in Bristol Channel and Severn Estuary: research dissertation on "Sea to Land Transfer of Marine Pollutants. 34 years' work experience as freelance Marine Pollution Researcher and Consultant.

Emeritus Professor Keith Barnham [k.barnham@imperial.ac.uk](mailto:k.barnham@imperial.ac.uk)

Physicist at Imperial College London and a leading researcher and developer of silicon solar cells. Author of "The Burning Answer: a User's Guide to the Solar Revolution" (2014).

Dr. Chris Busby [christo@greenaudit.org](mailto:christo@greenaudit.org)

Member DoH and DEFRA Committee Examining Radiation Risk from Internal Emitters 2001-2004; MoD Depleted Uranium Oversight Board 2002-2007; Scientific Secretary: European Committee on Radiation Risk

Richard Bramhall [lowradcampaign@gmail.com](mailto:lowradcampaign@gmail.com)

Secretary of Low Level Radiation Campaign since 1996, member of Committee Examining Radiation Risks of Internal Emitters 2001- 2014.

Denis Henshaw [D.L.Henshaw@bristol.ac.uk](mailto:D.L.Henshaw@bristol.ac.uk)

Emeritus Professor of Human Radiation Effects, University of Bristol.

Dr. Jill Sutcliffe [jillsutcliffe1@gmail.com](mailto:jillsutcliffe1@gmail.com)

Environmental scientist specialising in radioactivity in the environment; co-led work on radioactivity and wildlife for English Nature (now Natural England)

We respectfully ask you to reply to this letter at your earliest convenience.

**Signed:**

Sean Morris, UK & Ireland Nuclear Free Local Authorities and Mayors for Peace Chapter Secretary / Principal Policy Officer

Dr Jill Sutcliffe, Jill Sutcliffe, Low Level Radiation and Health Conference

Pete Roche, Editor No2Nuclear and former member of Committee Examining Radiation Risks of Internal Emitters (CERRIE)

Linda Pentz Gunter, international specialist, Beyond Nuclear

Sue Aubrey, Chair Stop Hinkley

Richard Bramhall, Low Level Radiation Campaign

Alasdair Philips, Director of Powerwatch (also a Trustee for Children with Cancer UK)

Pete Wilkinson, Chairman, Together Against Sizewell C (TASC)

Dr George M Reeves, Partner, Nuclear Waste Advisory Associates

Mag Richards, Secretary, Welsh Anti-Nuclear Alliance

Jo Brown, Parents Concerned About Hinkley and Delegate at NGO/BEIS Forums

Professor Andrew Blowers OBE, Chair, Blackwater Against New Nuclear Group

Jonathon Porritt, Author and campaigner

Rita Holmes, Ayrshire Radiation Monitoring Group

Janine Allis-Smith, Health Campaigner, Cumbrians Opposed to a Radioactive Environment

Ian Ralls, Co-ordinator, Friends of the Earth Nuclear Network

Dr Paul Dorfman, UCL Energy Institute, University College London, Founder/Chair, Nuclear Consulting Group (NCG)

Dr Ian Fairlie, Independent consultant and Vice President CND

Dylan Morgan, Co-ordinator, Pobl Atal Wylfa B/People Against Wylfa B

Neil Crumpton, People Against Wylfa B

Emeritus Professor Brian Wynne, Lancaster University, member 1994-2000, European Environment Agency Management Board and Scientific Committee

David Thorpe, Founder/Director, The One Planet Centre, Carmarthenshire

Doug Parr, Policy Director, Greenpeace UK

Dr Alan Terry, member of Nuclear Consulting Group, Abergavenny

Dr David Lowry, Member, Chief Nuclear Inspector's Independent advisory panel; senior international research fellow, Institute for Resource and Security Studies, Cambridge, Massachusetts, USA.

Professor Andy Stirling FAcSS, Science Policy Research Unit, University of Sussex

Dr David Toke, Reader in Energy Politics, Department of Politics and International Relations, University of Aberdeen

Councillor Ernie Galsworthy, NFLA Welsh Forum Chair

Councillor David Blackburn, NFLA English Forum and UK Steering Committee Chair

Steve Thomas, Emeritus Professor of Energy Policy, Public Services International Research Unit (PSIRU), Business School, University of Greenwich

Dr Ruth Balogh, Co-ordinator, West Cumbria & North Lakes Friends of the Earth

Tim Deere-Jones, Marine Radioactivity Research & Consultancy: Wales

Alison Downes, Executive Director, Stop Sizewell C

Emeritus Professor Keith Barnham, Distinguished Research Fellow, Imperial College London