



Roy Pumfrey
Stop Hinkley Spokesperson
12 Park Lane
Cannington
BRIDGWATER
TA5 2LU

01278 652089
Mobile: 07886 028 910

Major Applications & Plans,
The Planning Inspectorate,
Temple Quay House,
2 The Square Temple Quay,
Bristol
BS1 6PN

28th November 2017

By e-mail to HPCNuclear@pins.gsi.gov.uk

Dear Sir or Madam,

HPC Project - Non-material change 3

**The Hinkley Point C (Nuclear Generating Station) Order 2013 - S.I. 2013 No. 648
Application for a Non-Material Change in relation to the Hinkley Point C Development Site
Consultation under Regulation 7 of the Infrastructure Planning (Changes to, and Revocation of,
Development Consent Orders) Regulations 2011.**

1. The main feature of this Application which concerns Stop Hinkley is the proposed change to the radioactive waste storage system from a wet to a dry system. This requires modification of the building on site, making it twice as big by volume and 30m high (as opposed to 25m). In our view this is not a “non-material” change and should have been subjected to a much wider consultation and a new planning inquiry. We understand from West Somerset Council “*that significant numbers of local people are of the view that the proposed change is material*”.
2. We are also concerned about the limited number of local people who have been consulted about these changes as detailed in the table in Annex 3 here:
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010001/EN010001-006607-171101%20Letter%20to%20BEIS%20and%20PINS%20Publicity%20Statement.pdf> We are particular concerned about the number of local authorities and Parish Councils who have not

been consulted. In short, there has been no opportunity for members of the public and the local community to be properly consulted and given the opportunity to provide more detailed representations on the issue of dry storage;

3. The spent fuel store (whether wet or dry) is intended to support the operation of the power station by housing what is, in effect, high level radioactive waste, until it is capable of being sent to a Geological 'Disposal' Facility(GDF). A GDF is not expected to be ready to receive waste until at the earliest 2040. Waste from new reactors like Hinkley Point C is not expected to be emplaced in the GDF until after all our existing waste has been emplaced which is expected to take around 90 years – around 2130. This means that spent fuel from Hinkley Point C could remain on the site in Somerset for at least the next 100 years. There is no information about whether the proposed change will have any impact on the length of time waste is stored on the Hinkley Point site.
4. Although EDF Energy says it is possible that spent fuel might start to be transported off site during the lifetime of Hinkley Point C, it is prudent to plan to store all of the lifetime arisings of the two reactors which are planned.¹ The original plan was to store spent fuel from Hinkley Point C in spent fuel storage ponds. EDF was planning to be able to extend the life of the storage ponds for up to 100 years after the reactors close (i.e. around 2185).² (9) We assume that the proposed dry store will have a similar life. But this should have been discussed more widely within the local community.
5. Hinkley Point C is expected to use high-burn up fuel which could require up to 100 years of cooling before it will be cool enough to be emplaced in a GDF. So assuming Hinkley Point C comes on stream around 2025, with an expected reactor life of 60 years, this means spent fuel may need to be stored in Somerset until about 2185. There is no information about whether the change makes it more or less likely that spent nuclear waste fuel will remain on site for the full 160 years.
6. There is a lack of information in order to assess whether or not the proposed changes make the high level nuclear waste more or less vulnerable to a malicious attack. A recent study in the US detailed how a major fire in a spent fuel pond "*could dwarf the horrific consequences of the Fukushima accident.*" The authors said "*We're talking about trillion-dollar consequences.*" It is impossible on the information available to assess whether a dry store will be any less vulnerable.³
7. According to the Environmental Statement accompanying the original planning application key issues for consideration in deciding the method of storage for spent fuel were: protecting long term flexibility with respect to possible development in fuel technology, ease of inspection of spent fuel thus enabling review of fuel condition against GDF waste acceptance criteria, reducing financial risks and maximising the benefits from retaining consistency in design with other EDF EPRs. (See <https://www.westsomersetonline.gov.uk/getattachment/Council---Democracy/Council-Meetings/Cabinet-Meetings/Cabinet---1-November-2017/Agenda-and-Reports-1-11-2017.pdf.aspx>) There is insufficient information to be able to assess the proposed change against these criteria.

¹ Hinkley Point C Pre-application Consultation, See para 6.30 here <https://www.edfenergy.com/sites/default/files/V2%20C06%20Spent%20Fuel%20and%20Radioactive%20Waste%20Management.pdf>

² As above para 6.42

³ Science 24th May 2016 <http://www.sciencemag.org/news/2016/05/spent-fuel-fire-us-soil-could-dwarf-impact-fukushima>

8. West Somerset Council points out that: *“the Council on behalf of the community will wish to be assured that the consideration of GDF waste acceptance criteria has adequately informed the proposal for interim dry storage. Furthermore, the Council will want to be assured that from a regulatory perspective, the selection of dry storage is consistent with the wider regulatory aims of the Office for Nuclear Regulation to ensure delivery of a safe and secure solution for interim waste storage.”*

It continues:

“...the ISFS will be in situ long after the operational power station has come to the end of its life and potentially decommissioned. It will only be removed when all the spent fuel has been moved to a Geological ‘Disposal’ Facility.

And

*“A location for a GDF has not been found (and a potential location is arguably less clear than during the consideration of the original [planning]application) and it is noted that all existing fuel within the UK from legacy sites would be moved to the GDF prior to any new material from HPC being transferred. Therefore, **the ISFS could therefore be in situ for a significant period of time – well into the next Century and potentially beyond. In this context a larger store which will be more prominent in the landscape could cause additional adverse impacts which have not been assessed.** More particularly, the ISFS is the closest building within the HPC site to the West Somerset Coastal Path (at its closest point the ISFS is only 21m from the Coastal Path) and the increased height of 5m will be significant and, as above, present over a significant period of time. The Application Statement does not make any assessment of this very long term scenario which is an important omission.”*
(Emphasis added.)

We agree with this assessment. We therefore believe there is a strong case for a new planning inquiry.

9. There has been virtually no discussion nationally about how the nuclear waste generated by HPC will be managed, despite the fact that we still don't know what is going to happen to the waste we have already created. So the proposed changes raise important issues for debate and consultation nationally. **By the time the station closes around 2085 the radioactive content of the waste will amount to the equivalent of 80% of the waste which currently exists in the whole of the UK.** The nuclear industry and government repeatedly claim that the volume of nuclear waste produced by new reactors will be small, approximately 10% of the volume of existing wastes; implying this additional amount will not make a significant difference to finding an underground dump for the wastes the UK's nuclear industry has already created. The use of volume as a measure of the impact of radioactive waste is, however, highly misleading. Volume is not the best measure to use to assess the likely impact of wastes and spent fuel from a new reactor programme, in terms of its management and disposal. The 'high burn-up fuel' which Hinkley Point C is expected to use will be much more radioactive than the spent fuel produced by existing reactors like Hinkley Point B. So rather than using volume as a yardstick, the amount of radioactivity in the waste, which affects how much space will be required in a deep geological repository, are more appropriate ways of measuring the impact of nuclear waste from new reactors. According to Radioactive Waste Management Ltd, the radioactivity from existing waste (i.e. not including new reactors) is expected to be 4,770,000 Terabecquerels (TBq) in the year 2200. The radioactivity of the spent fuel alone (not including other types of waste) generated by a 16GW programme of new reactors is expected to be around 19,000,000TBq. Hinkley Point C would be a 3.2GW station, so the amount of

radioactivity in the spent fuel from Hinkley Point C in the year 2200 would be 3,800,000TBq – or about 80% of the radioactivity in existing waste.⁴

For all the above reasons we object to the proposed changes being declared “Non-material changes” and call for a much wider consultation and public examination of these proposals.

Yours faithfully,

Roy Pumfrey
On behalf of Stop Hinkley

⁴ See Geological Disposal: An overview of the differences between the 2013 Derived Inventory and the 2010 Derived Inventory, RWM Ltd July 2015 <https://rwm.nda.gov.uk/publication/differences-between-2013-and-2010-derived-inventory/>