

Briefing 1: Hinkley Point C, Bridgwater, Somerset, TA5 1UD - Construction Water Discharge environmental permit application

Permit Variation Application numbers: [EPR/JP3122GM/V009](#) & [EPR/JP3122GM/V010](#)

2 August 2021

Introduction

- We have received two applications from NNB Generation Company (HPC) Limited (NNB GenCo) to vary an existing permit at Hinkley Point C, under the Environmental Permitting (England and Wales) (Amendment) Regulations 2018.
- The Company already has a number of environmental permits in place for both the construction and the future operation of the nuclear power station. This briefing note will tell you more about why the Company has applied to vary this permit, where to find more details and how to comment.
- Under reference number [EPR/JP3122GM/V009](#) the Company has applied to us because as construction progresses on site it will need to test and clean various components and systems before electricity generation starts. The Company wants to vary the permit so that it can discharge this new type of liquid waste used for testing and cleaning to the Severn Estuary.
- Under reference number [EPR/JP3122GM/V010](#) the Company also wants to increase the level of Ammonia that it is allowed to discharge in the liquid from two of its existing activities, which are already covered by this construction phase permit.
- We are considering these two applications at the same time because the Company has carried out modelling to assess the combined impact of both aspects. The results of this modelling can be seen in the reports referred to under the later section, "What are we consulting on".

What does the Company want to do?

This existing permit allows a number of discharges to be made to the Severn Estuary solely during the construction phase at HPC.

a. Under reference number [EPR/JP3122GM/V009](#)

The Company wants to vary this existing construction phase permit to allow the discharge of another type of liquid waste – known as trade effluent. This will result from cold commissioning activities onsite and it will be discharged into the Severn Estuary via a pipe on HPC's temporary jetty. Cold commissioning simply means testing the performance of certain components and systems, such as pipes, tanks and other structures. The tests will check for leaks and blockages and how the water flows through them before the start of electricity generation on site.

The Company wants to be able to discharge up to 1500 cubic metres daily of this trade effluent from their cold commissioning activities to the Severn Estuary at a maximum rate of 70 litres per second.

The Company wants to carry out the following activities as part of their tests:

- Hydro-testing - this involves filling components and systems with water up to a certain pressure to test for leaks. The company then want to discharge this used water to the Severn Estuary.
- Flushing – this involves filling and emptying the components and systems several times to check they are clean and flowing correctly. The company then want to discharge this used water to the Severn Estuary.



- Production of demineralised water - this involves purifying water to be used for the hydro-testing and flushing described above. The production of this demineralised water results in a by-product which the company also wishes to discharge to the Severn Estuary.

In some cases chemicals will be used for these activities so they may be present in the water that will be discharged into the Severn Estuary. These chemicals are:

- Hydrazine
- Un-ionized ammonia
- Ethanolamine
- Trisodium Phosphate

b. Under reference number [EPR/JP3122GM/V010](#)

Based on the results of the Company's own modelling the Company also wants to increase the level of Ammonia that it is allowed to discharge in the liquid waste from two of its existing activities, which are already covered by this construction phase permit. The two existing activities on this permit are:

- Activity E2 - Trade effluent (consisting of pumped groundwater) discharged via Outlet 12. The permit already allows a maximum daily discharge of 1728 cubic metres at a maximum rate of 20 litres per second.
- Activity H - Trade effluent (consisting of tunnelling effluent and muck bay drainage) also discharged via Outlet 12. The permit already allows a maximum daily discharge of 2592 cubic metres at a maximum rate of 30 litres per second.

The Company want to carry on discharging these two liquid wastes via Outlet 12 to the Severn Estuary. This is the same discharge point as that which will be used for the trade effluent from cold commissioning activities. The outlet is located on HPC's temporary jetty.

Will the discharge be radioactive?

- There will be no radioactivity associated with the components and systems being tested as part of this new 'cold commissioning' or with any of the existing activities included in this construction phase permit.
- At a later stage following the completion of testing and commissioning of the relevant systems, radioactive fuel loading will occur at the power station. At that stage any liquid discharges will be covered under the existing Radioactive Substance Regulation permit (Permit number: [EPR/ZP3690SY](#)).

What are we consulting on?

The Company has submitted a number of reports which are relevant to both applications to vary its existing permit. The applications and supporting reports are all available to view at <https://consult.environment-agency.gov.uk/psc/ta5-1ud-nnb-generation-company-hpc-limited-v009>. We need to consider all of these fully and independently before we can make any decision on whether the Company's proposals are acceptable or not. The reports submitted by the Company include the following:

- A summary report, which provides the detail of the applications and the supporting information, including a non-technical summary.



- A report detailing the modelling assessment of the effluents that the Company wants to discharge via the temporary jetty (TR428).
- A report detailing the modelling assessment for the discharge of hydrazine (one of the chemicals used for flushing) within the effluent (TR445). This includes an assessment of hydrazine levels expected both in the cold commissioning effluent and in the cooling water once the power station is operational (up and running). We are currently only consulting on, and assessing, the sections of this report relevant to the cold commissioning effluent.
- A report providing evidence to inform a Habitats Regulations Assessment (TR550). This considers whether the effluents that the Company wants to discharge via the temporary jetty have the potential to affect the habitats and species designated as part of the Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar site, and also those forming part of the Bridgwater Bay Site of Special Scientific Interest (SSSI).
- A report that predicts the effect of the power plant on the water quality at Hinkley Point (TR186), which was produced in 2011 and includes an evaluation of the potential effect of discharging hydrazine at Hinkley Point.
- A report that details laboratory studies conducted on the decay of hydrazine in Hinkley Point seawater (TR390).

Why are we consulting?

- We are running a public consultation because Hinkley Point C is a major infrastructure project, important at the local, national and international scales. We understand that changes at the site are likely to be of public interest. We make decisions based on evidence and involve stakeholders, consultees and the public in order to improve the transparency of our decision-making.
- We welcome feedback from everyone who has a view on the application, regardless of their age, sex, disability, marriage and civil partnership status, pregnancy or maternity status, race, religion or belief or their sexual orientation.
- We are running this consultation in accordance with the criteria set out in the government's [Consultation Principles](#).
- We are sending this briefing note to local people who have asked to be on our mailing list and we have placed an advert in the Bridgwater Mercury. We are also consulting a number of professional bodies and organisations including County, District and Parish Councils, environmental groups and local MPs.

How to Respond:

Online: If you would like to comment online, please do so using our Citizen Space online consultation portal at: <https://consult.environment-agency.gov.uk/psc/ta5-1ud-nnb-generation-company-hpc-limited-v009>

By post: Please send your comments to:

Environment Agency
Permitting and Support Centre
Water Quality Team
Quadrant 2
99 Parkway Avenue
Sheffield
S9 4WF

Email: Please send to psc-waterquality@environment-agency.gov.uk



Phone: Please contact our Permitting and Support Centre on 03708 506 if you need printed versions of the documents.

Please send your comments to us by 23.59 on 14 September 2021.

Please quote the relevant permit variation application number in your response.

What will my response be used for?

- We will take your consultation responses into consideration as part of our determination of the permit. If we decide to grant the permit we will explain how we made our decision and how we have addressed the issues that you raised.
- We will only issue a permit if we believe that harm to the environment, people and wildlife will be minimised and that the operator has the ability to meet the conditions of the permit. Providing a business can prove that the proposed activities meets all the legal requirements, including environmental, technological and health requirements, then we are legally obliged to issue a permit, even if some people do not approve of the decision.

How will we use your information?

- We will look to make comments received publicly available at our local Environment Agency office.
- We do not include personal email addresses and telephone numbers in comments which are made publicly available. If you have requested confidentiality your comments will not appear on our public register.
- In accordance with the Freedom of Information Act 2000, we may be required to publish your response to this consultation, but will not include any personal information. If you have requested your response to be kept confidential, we may still be required to provide a summary of it.

How can I get further information?

Please address any questions about this permit application to psc-waterquality@environment-agency.gov.uk

For general information about our permitting process please see:

www.gov.uk/topic/environmental-management/environmental-permits

For further information about our role in regulating Hinkley Point please see:

<https://www.gov.uk/government/collections/hinkley-point>

For enquiries about our work on other issues, please email: wessexenquiries@environment-agency.gov.uk

You can report any environmental incidents via our free 24 hour incident hotline on 0800 80 70 60.

