

Your Ref: RFI 28072025
Our Ref: NWH.007



Sarah Raymond,
Principal Permitting Officer – Installations
Environment Agency,
Trentside Offices, Scarrington Road,
West Bridgford,
Nottingham, NG2 5BR

20th August 2025

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Dear Ms Raymond,

[Request for information \(RFI\) 28072025 relating to EPR/BP3923LR/A001](#)
[Operator: F M Conway Limited](#)
[Facility: Newhaven Asphalt Plant, North Quay, Newhaven, BN9 0AB](#)
[Question 6c: Screening tests: estuaries and coastal waters](#)

Background

I am responding to Question 6c in your letter dated 28th July 2025, where you have requested submission of the H1 risk assessment to examine the fate and impact of the discharge in line with guidance (“Surface water pollution risk assessment for your environmental permit”).

Surface water run-off from the permitted area is directed (via interceptors) into Denton Sewer, which runs under the Site. Denton Sewer discharges into the River Ouse.

Pre-application discussions

The Screening Tests says:

- *Check whether your discharge is to a location with restricted dilution or dispersion.*
- *Around the coast there are a number of locations where dilution, dispersion or flushing is too limited to carry out test 5. Examples are enclosed bays (such as Lulworth Cove in Dorset), docks and ports. In these locations there is limited exchange of water between the point of discharge and offshore waters.*
- *If you need to check whether your discharge is to a location with restricted dilution or dispersion, email the Environment Agency”.*

I have held pre-application discussions (email correspondence) with Lucy Houghton, Water Quality Specialist, OCS WQ Marine Team with the Environment Agency (Romsey Office).

The question that I asked in these discussions is reproduced (*italics*):

Please could you check whether this stretch of the River Ouse has “restricted dilution or dispersion”?

Is it a relevant question if the proposed discharge point is into the Denton Sewer?

Further to this, should we be using background concentration (BC) data in the Denton Sewer or River Ouse?

The reply from the OCS WQ Marine Team is as follows (*italics*):

From my perspective even if the proposed discharge is into the Denton Sewer, that sewer still has an outfall into the River Ouse. Therefore, the question of dispersion is relevant and as such, background concentrations will be from the River Ouse.

The outfall's NGR is TQ 44634 01728. (Best estimate).

With regards to your question, if this stretch of the River Ouse has "restricted dilution or dispersion" – it does not. I have checked the aerial imagery and the structure to the west of the outfall which goes under the bridge doesn't appear to be a solid object so should allow dispersion through it.

Site condition report (SCR)

Key details from the SCR are reproduced below:

Stage 1: Identifying the hazardous substances that are currently used, produced or released at the installation.

Coal tar bound road planings will be stored on site only prior to being moved off site for disposal/ recovery elsewhere.

Stage 2: Identifying the relevant hazardous substances.

Coal tar bound road planings are solid in nature and contain long chain aromatic hydrocarbon and polycyclic aromatic hydrocarbon (PAH) compounds.

Stage 3: Assessment of the site-specific pollution possibility.

Up to 2000 tonnes of coal tar bound planings will be stored on site at any one time in a new covered storage bay.

The concrete storage bay for the coal tar bound planings will segregate the planings and form a barrier to prevent contaminant migration from the coal tar to the underlying soil. The cover on the storage bay will also prevent rainwater falling on the coal tar planings and leaching mobile contaminants.

Laboratory analysis suite for water samples

Water samples were taken from the River Ouse (immediately upstream of its confluence with Denton Sewer); and from the discharge point at Hydrocarbon Interceptor 2.

Please see attached "WQ Data" spreadsheet.

There are another two interceptors on site, which have the same specification as Hydrocarbon Interceptor 2; and can therefore be expected to perform to the same standards. Nonetheless, for future monitoring rounds, the applicant (FMC) has been advised to collect samples from all three interceptors (when there is throughflow).

The laboratory analysis suite for the water samples has been selected by reference to the list of parameters included in Leach Test BS EN 12457/3 (Waste Acceptance Criteria Analytical Suite) and with focus on those parameters that are listed by the guidance tables: *“Estuaries and coastal waters specific pollutants and operational environmental quality standards”* and *“Estuaries and coastal waters priority hazardous substances, priority substances and other pollutants environmental quality standards”*.

The data have been compared with environmental quality standards (EQS) for maximum allowable concentrations (MAC) – to evaluate the short-term environmental impacts of the emissions; and EQS for annual average concentrations (AA) – to evaluate the long-term environmental impacts.

With regard to PAH, the guidance table states that **Benzo(a)pyrene** can be considered as a marker for the other PAHs, hence only benzo(a)pyrene needs to be monitored for comparison with the biota EQS or the corresponding AA-EQS in water.

River Flow Rate (RFR)

The guidance states that the screening test should be conducted at 95% exceedance river flow (Q95).

Looking at the National River Flow Archive (NRFA), the nearest flow gauging station is 41004 - Ouse at Barcombe Mills. 95% exceedance river flow (Q95) at this station is 0.292 m³/s arising from a catchment area of 395.7 km².

Southern Water’s Drainage and Wastewater Management Plan (DWMP): Overview of the Adur and Ouse River Basin Catchment (October 2022, Version 2) states that: The River Ouse catchment is formed by an extensive network of tributaries, streams and brooks collecting water from across 650 km² of East and West Sussex. The river continues through Lewes, the County Town of East Sussex, before reaching the sea at Newhaven.

Scaling up from the catchment area at Barcombe Mills (395.7 km²) to the catchment area at Newhaven (650 km²), Q95 in the River Ouse at Newhaven is estimated at 0.480 m³/s (480 l/s).

Background concentration (BC) data

Please see attached “WQ Data” spreadsheet.

As directed by the OCS WQ Marine Team, background concentration (BC) data has been collected from the River Ouse, immediately upstream of its confluence with Denton Sewer.

Where concentrations are below the Limit of Detection (LOD), the LOD achieved by the Applicant’s laboratory (DETS Ltd) has generally been used in the calculation.

Where the DETS LOD is significantly higher than the EQS, the river sampling data published by the EA (with improved LOD) has been utilised because the EA samples are also below LOD. The data source is detailed for each calculation in the attached pdf (“Supporting Calculations Template - Newhaven - Q95 - 48 l/s”).

The results for Copper, Lead, Nickel and Zinc have been compared with Bioavailable EQS. Again, where the DETS LOD is significantly higher than the EQS, the river sampling data published by the EA has been utilised because the BLM Bioavailable Data are reported for these parameters.

As above, the data source is detailed for each calculation in the attached pdf (“Supporting Calculations Template - Newhaven - Q95 - 48 l/s”).

Effluent Flow Rate (EFR)

Meridian Civil Engineering Consultancy Ltd has produced a document entitled “Surface Water Drainage Strategy”, which includes a calculation of the outflow volume (345.8 m³) during the 2-year Critical Storm (120-minute summer). This equates to 48 l/s. Please see attached “Outflow at Page 6 of Causeway File: Storm 2.pfd Aug 25”.

This is considered to be a conservative approach given that the flow rate in the receiving river is unlikely to be at low flow (Q95) during this storm event; therefore, the dilution factor will be higher than what is being predicted by the calculations.

Release concentration (RC) data

Please see attached “WQ Data” spreadsheet.

The release concentration (RC) data has been collected from the discharge point at Hydrocarbon Interceptor 2.

Where concentrations are below the Limit of Detection (LOD), the LOD achieved by the Applicant’s laboratory (DETS Ltd) has generally been used in the calculation. For certain parameters, the laboratory reporting limit has been assumed, and I have recommended that repeat samples be collected to achieve an improved LOD. For those parameters where this is applicable, this requirement is highlighted in the attached pdf (“Supporting Calculations Template - Newhaven - Q95 - 48 l/s”).

The RC results for Copper, Lead, Nickel and Zinc have been converted to BLM Bioavailable Data using the Bio-Met_bioavailability-tool_v5.1_-14-06-2022 (attached). The Dissolved Organic Carbon (DOC) data used for this calculation was taken from a water sample collected by the Applicant at the Denton Sewer on 8th April 2025 (i2 Analytical Ltd. Laboratory Sample Number 508736). For those parameters where the DOC data has been used, this has been highlighted in the attached pdf (“Supporting Calculations Template - Newhaven - Q95 - 48 l/s”).

Risk screening

The guidance on “Screening tests: estuaries and coastal waters” says:

- *Check whether you are discharging to the low water channel (if the water does not flow across the estuary bed at any stage of the tide) in the upper parts of an estuary where the water is mainly fresh.*
- *If the discharge is direct to the low water channel, do the screening tests for freshwater starting at test 2.*
- *In the calculations for freshwater tests 2 to 4 use the freshwater flow rate and upstream quality but use the EQSs for estuaries and coastal waters.*

This was confirmed by discussion with the OCS WQ Marine Team.

This approach was therefore adopted when conducting the risk screening calculations (“Supporting Calculations Template - Newhaven - Q95 - 48 l/s”)

All parameters are shown to pass the screening test.

I would re-iterate the recommendations outlined above, namely:

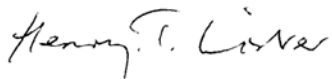
- The water sample was taken at the discharge point at Hydrocarbon Interceptor 2. There are another two interceptors on site, which are the same specification as Hydrocarbon Interceptor 2; and can therefore be expected to perform to the same standards. Nonetheless, for future monitoring rounds, the applicant (FMC) has been advised to collect samples from all three interceptors (when there is throughflow).
- For certain parameters, the laboratory reporting limit has been assumed, and I have recommended that repeat samples be collected to achieve an improved LOD.

During operations, grab samples of the coal tar bound planings should be routinely submitted for Leach Test BS EN 12457/3 (Waste Acceptance Criteria Analytical Suite). The results of the leach test will be used to confirm that the parameters covered by the water sampling programme at the discharge point (at each interceptor) continue to be in line with the waste being temporarily placed in the “covered storage bay”.

Closure

I trust that this provides sufficient information at this stage. Please do not hesitate to call me on 07773 319271 should you wish to discuss any of the above points or seek any further clarification.

Yours sincerely,



Henry Lister

Principal Hydrogeologist

BCL Consultant Hydrogeologists Limited