Connah's Quay Low Carbon Power

Environmental Statement Volume IV
Appendix 12-E: Marine Biosecurity Risk Assessment

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Marine Invasive Non-native Species Biosecurity Risk Assessment and Management Plan

A Marine Biosecurity Risk Assessment and Management Plan enables marine operators and contractors to understand and minimise the risk of introducing or spreading marine invasive non-native species (INNS). Management of marine INNS is extremely challenging once they are introduced to a new area. Effective biosecurity measures that minimise the risk of introduction or spread are therefore key to effective management.

Filling in this form:

To help you fill in this form, see accompanying document “Guidance for completing NRW’s Biosecurity Risk Assessment and Management Plan”. The accompanying document contains clarification of many key terms and also provides guidance on potential pathways of introduction for INNS (Table 1) and level of risk associated with each pathway (Table 2).

Structure of this form:

You will need to fill in Sections A and C. Fill in sections B1 to B5 when relevant to your activity. For further information on what is included in each section see the accompanying guidance document.

Section A: Activity overview

You should complete this section.

Section B: Risk Assessment

B.1 Assessing the pathway risks associated with vessels

If you are using a vessel (or vessels) as part of your licensed activity you should complete this section. Information on any equipment to be used which can be separated from the vessel should be provided in Section B.4.

B.2 Assessing the pathway risks associated with non-biological materials and water

If your activity involves the use or transfer of non-biological materials (e.g. water, sediment, construction material) you should complete this section.

B.3 Assessing the pathway risks associated with biological material

If your activity involves the use or transfer of biological material (including aquaculture) you should complete this section.

B.4 Assessing the pathway risks associated with equipment

If your activity involves use of equipment which can be separated from their vessel you should complete this section.

B.5 Assessing other pathway risks

This should be filled in if previous sections do not capture aspects of your activity.

Section C: Management Measures

You should complete this section.

Section D: Recommendations

You should consider this section.

Section A: Activity overview

Please fill out the activity details below:

Applicant name:	AECOM on behalf of the undertaker
Short description of activity: *(please provide enough detail for NRW to understand the location and the different elements of the project. Links to other documents which describe the project can be provided)*	This marine management plan forms part of the Construction Environmental Management Plan (CEMP) for the demolition of an existing gas treatment plant (GTP) and above-ground installation (AGI), store buildings, and contractors' facilities on site and the construction, operation and maintenance of a Combined Cycle Gas Turbine (CCGT) generating plant with Carbon Capture Plant (CCP) (the 'Proposed Development') at Connah's Quay, Flintshire, Wales. This assessment specifically relates to the water connection works in the Dee Estuary associated with the Proposed Development. The Proposed Development would require a source of cooling water and process water and would use the existing Connah's Quay Power Station abstraction and discharge infrastructure within the River Dee. The existing infrastructure requires refurbishment to meet current legislative requirements including the Eels (England and Wales) Regulations 2009 ('Eels Regulations'). The area within which works on the existing abstraction and discharge infrastructure would occur is referred to as the Water Connection Corridor.
Estimated timings of proposed licensed activities:	The exact project timings have not been finalised. The construction of the Proposed Development could start as early as Q4 2026 and continue up to Q4 2031, depending on when the Development Consent Order is granted. The Water Connection Corridor elements of the Proposed Development are likely to take 3-5 months to complete, however it has not yet been determined when this would take place within the construction programme.

Section B: Risk Assessment

B.1 Assessing the pathway risks associated with vessels

B.1.1. Please list all ports within the UK or overseas that all vessel(s) to be used (both during construction and maintenance) have visited over the 12 months prior to this licensed activity, or since the last out of water period (whichever is most recent).

Please state **N/A** if vessels have not entered any port since the last out of water period.

If you do not yet have the information to complete this section, please state **Unknown.** NRW may ask for this section to be updated when these details are known. The risk should be set as High.

Vessel name	**Port / location visited over last 12 months** (listed chronologically with dates if known)	**Which marine invasive non-native species known to be present at this port(s) / location(s)?**	**Has the vessel had antifouling?** 12 months prior to activity for biocidal coatings, 24 months for biocide-free coatings
Unknown – to be confirmed at a later stage once the principal contractor has been appointed	Unknown – to be confirmed at a later stage once the principal contractor has been appointed	Unknown – to be confirmed at a later stage once the principal contractor has been appointed	Unknown – in the event that a vessel originates from outside UK waters or from a local port / harbour known to have INNS present, antifouling may be a requirement. This would be assessed at the time.

Please add more rows if necessary

Please indicate the INNS risk level and justification of the risk below, separately for each vessel based on the locations visited in last 12 months. This should take into account the probability of biofouling and vessel antifouling regime. **Note:** Examples of risk levels are given in Table 2 of the accompanying guidance document and there is further information about this section in the accompanying guidance document.

Vessel name / type	**Risk Level (High, Medium, Low)**	**Justification of risk level**
Unknown	Low	The vessels are assumed to originate from local / UK waters. In the vicinity of the Proposed Development (i.e. in the River Dee), the only INNS species known to be present is the Chinese mitten crab. However, very few reports of this species have been

		recorded within the Water Connection Corridor and the habitats here are not particularly suited to this species requirement to build burrows. All vessels would comply with best practice measures including adhering to the International Convention for the Control and Management of Ships' Ballast Water and Sediments with the aim of preventing the spread of marine INNS and the International Maritime Organisation (IMO) Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines). The implementation of these measures are believed to result in a risk level of **low**.

B.1.2 Please provide details of the vessels (identified in Table B.1.1), which have not had antifouling (within the 12 months prior to the licensed activity for biocidal coatings, or 24 months for biocide-free coatings) and if there is an alternative antifouling management regime.

If there are not additional measures or an alternative biofouling management regime, then please put **None**, and the risk level would not change.

Vessel	**Alternative biofouling management regime** (e.g. different timeframes for antifouling treatment, vessel storage on land etc.)	**Risk Level (High, Medium, low)**
N/A	All vessels are expected to have antifouling treatment prior to the licencsed activity within suitable timeframes.	N/A

B.2 Assessing the pathway risks associated with non-biological materials and water

B.2.1: Please provide information about the source and receiving environments for non-biological materials and water transferred through the licensed activity from different pathways (for example hopper water, dredge material, construction material).

Pathway	**Location (including Coordinates, WGS84)**		**Relevant Environmental Conditions for INNS species** (e.g. salinity and depth differences between source and receiving environments)	**List of INNS known to be present**	**Risk Level (High, Medium or Low)**	**Justification of risk level**
Introduction and / or spread of INNS through ballast water and bilge water	Source	Unknown	Unknown – vessels expected to be local or UK waters	Unknown	Low	The vessels are assumed to originate from local / UK waters. In the vicinity of the Proposed Development (i.e. in the River Dee), only Chinese mitten crab are known to be present. However, very few reports of this species have been recorded within the Water Connection Corridor. All vessels would comply with best practice measures including adhering to the International Convention for the Control and Management of Ships' Ballast Water and
	Receiving	Dee Estuary	The Dee Estuary and River flows into the Irish Sea. The river channel bathymetry ranges from 17 m below Chart Datum (CD) to 8 m above (see **Chapter 16: Physical Processes** (**EN010166/APP/6.2.16**). The exact salinity within the Water Connection Corridor and surrounding waters is not known. However, the	The only INNS species known to be present in the Dee Estuary is Chinese mitten crab. It is currently not known where the vessels would be originating from and therefore which INNS are likely to be present in the source location. However, vessels are expected to originate from local / UK waters.	Low	

			Dee Estuary has input from both saline and freshwater environments.			Sediments with the aim of preventing the spread of marine INNS and the International Maritime Organisation (IMO) Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines). The implementation of these measures are believed to result in a risk level of **low**.
Introduction and / or spread of INNS through biofouling on vessels	Source	Unknown	Unknown – vessels expected to be local or UK waters	Unknown	Low	The risk of introduction or spread of INNS through biofouling on the hulls of vessels used during the Proposed Development is considered to be low, particularly if vessels originate from local waters. In the event that the vessel(s) originate from outside the UK or from a local port/harbour where INNS are known to be present, the use of antifouling on vessel hulls may be a requirement and
	Receiving	Dee Estuary	Same as previous pathway	Same as previous pathway	Low	

						this would be assessed at the time. As a result, the risk level is **low**.

Please add more rows if necessary

B.3 Assessing the pathway risks associated with biological material

B.3.1 Please provide information about the species that will be used or transferred through the licensed activity and the potential for INNS to be contained in the biological material.

There would be no biological material transferred during the licensed activity.

B.3.2: Please provide information about the source and receiving environments for biological material used or transferred through the licensed activity. Pathways include, for example, transfer of seeded ropes with seaweed or shellfish.

Pathway	**Location (coordinates, WGS84) and / or name of culture facility**		**Relevant environmental conditions for INNS species** (e.g. salinity and depth differences between source and receiving environments)	**List of INNS known to be present in the location or culture facility**	**Risk Level (High, Medium or Low)**	**Justification of risk level**
N/A	Source	N/A	N/A	N/A	N/A	N/A
	Receiving	N/A	N/A	N/A	N/A	N/A
	Source					
	Receiving					

Please add more rows if necessary

B.3.3. If a relevant pathway is identified in Table B.3.2, please outline any relevant biosecurity measures or protocols in place to prevent contamination of material by marine INNS, and introduction or spread of marine INNS.

N/A

B.3.4. Does the transfer have the relevant documentation from the Fish Health Inspectorate at CEFAS (Aquaculture Production Business Registration), or follow other relevant codes of conduct for prevention of the introduction or spread of marine INNS? Please place an X in the relevant box.

Yes	No	Don't know	Not relevant
			X

B.4 Assessing the pathway risks associated with immersible equipment

B.4.1. Please list the immersible equipment expected to be used in this licensed activity in the box below.

There is no immersible equipment expected to be used during the licensed activity. Replacement of eel screens would be conducted at low tide for easy access, and equipment used would include hand drills and other handheld machinery.

B.4.2. Will all the immersible equipment used in this licensed activity undergo washing, rinsing and / or drying as part of routine maintenance at the times described below? Please place an X in the relevant box.

	Yes	No
Immediately prior to departing the port of origin to undertake the licensed activity.	N/A	N/A
Immediately prior to leaving the licensed activity area on completion of the licensed activity.	N/A	N/A

B.4.3. Will all the immersible equipment used in this licensed activity undergo washing, rinsing and / or drying between different deployments within the activity area of this licensed activity (e.g. different specific locations of dredging or sampling covered under this marine licence)? Please place an X in the relevant box.

Yes	No (please provide reason)
	N/A

If you answer No to any of the questions in B.4.2 or B.4.3, then please complete B.4.4 below.

B.4.4. Please provide information on the previous location the equipment will have been used prior to the vessel being used for this licensed activity.

Equipment	Location (Coordinates, WGS84)	Risk Level (High, Medium or Low)	Justification of risk level
N/A	N/A	N/A	N/A

B.5 Assessing other pathway risks

B.5.1 Please provide any other information on the licensed activity that may produce a risk of the introduction or spread of marine INNS that is not covered in the sections above.

Pathway	Risk Level (High, Medium or Low)	Justification of risk level
N/A	N/A	N/A

Section C: Management Measures

C.1 Management Measures

Enter the management measures for the pathways identified in the sections above.

All **high and medium risk** pathways identified in the previous risk assessment (sections B.1 to B.5) should have some degree of additional control or mitigation measures. Low risk pathways may also need additional control or mitigation measures. You may want to consider keeping a logbook to help demonstrate compliance if this is requested.

Pathway (identified in sections above)	**Risk Level (High, Medium or Low)**	**Risk management measure/s**	**Risk level after management (High, Medium or Low)**
Introduction and / or spread of INNS through ballast water and bilge water	Low	Although the risk of INNS introduction and spread is low, all vessels would comply with best practice measures including adhering to the International Convention for the Control and Management of Ships' Ballast Water and Sediments with the aim of preventing the spread of marine INNS and the International Maritime Organisation (IMO) Guidelines for the control and management of ships'	**Low**

Pathway (identified in sections above)	Risk Level (High, Medium or Low)	Risk management measure/s	Risk level after management (High, Medium or Low)
		biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines). Staff and operatives working on the eel screen upgrades should be trained in the identification of burrow holes for Chinese mitten crab. Any indication of burrows should be reported to the regulator, however these are unlikely to be present.	
Introduction and / or spread of INNS through biofouling on vessels	Low	The risk of introduction or spread of INNS through biofouling on the hulls of vessels used during the Proposed Development is considered to be low, particularly if vessels originate from local waters. In the event that the vessel(s) originate from outside the UK or from a local port/harbour where INNS are known to be present, the use of antifouling on vessel hulls may be a	**Low**

Pathway (identified in sections above)	Risk Level (High, Medium or Low)	Risk management measure/s	Risk level after management (High, Medium or Low)
		requirement and would be assessed at the time.	

Please add more rows if necessary

Section D. Recommendations

You may want to consider how compliance with the management measures will be recorded, for example in a log book or via photos.

We also recommend that;

- You identify an individual for monitoring and reporting on biosecurity management plan actions (a biosecurity manager)
- All staff involved in the licensed activity are made fully aware of the possibility that INNS may be encountered and understand what measures will be taken to ensure surveillance / monitoring of INNS during the activity
- All relevant staff are adequately trained in the identification and detection of INNS and to report any instances to the biosecurity manager