



Preliminary Environmental Information Report

Chapter 17: Major Accidents & Disasters

June 2021

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with energy.**



Report for

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Doc Ref. 41310-WOOD-XX-XX-RP-MD-0001_A_1

Document revisions

No.	Details	Date
1	Draft Version	May 2021
2	Final Version	June 2021



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17. Major Accidents & Disasters

17.1 Introduction

- 17.1.1 This chapter presents a description of the major accidents and disasters (MAD) that have the potential to arise during the construction, operation and decommissioning of the Proposed Development, and the embedded measures which ensure they would not be significant. The significance of effects is determined on a risk basis which is described in **Section 17.2**.
- 17.1.2 Terms and abbreviations referred to in this chapter are explained within **Appendix 1F: Terms and Abbreviations**.
- 17.1.3 A major accident has been defined for the purposes of this report as an occurrence resulting from an uncontrolled event caused by a man-made activity or asset leading to serious damage on receptors. The term 'disaster' is used to describe a natural occurrence leading to serious damage on receptors. In both cases, the effects could be either immediate or delayed.
- 17.1.4 The EIA Scoping Report¹ set out the potential major accidents and disasters which may be relevant to the Proposed Development. In its Scoping Opinion, the Planning Inspectorate (PINs) stated that '*The Inspectorate agrees that the measures described in the Scoping Report can be sufficient in addressing any likely significant effects.*' This position was clarified at a meeting with PINs on 04 June 2021 at which it was confirmed that the topic could be scoped out.
- 17.1.5 Whilst no further assessment of effects has been undertaken for this Preliminary Environmental Information Report (PEIR), and none is proposed for the Environmental Statement (ES), this chapter has been provided to address comments received in the Scoping Opinion in relation to the securing of embedded environmental measures and minor points relating to the methodology used in the assessment applied for scoping. As a consequence, the format may differ significantly from other PEIR aspect chapters that have been scoped in for assessment. This chapter contains:
- A description of stakeholder comments and proposed responses.
 - A description of the potential major accident and disaster (MA&D) effects which were agreed as not significant and therefore scoped out in the Scoping Opinion.
 - Details of the embedded environmental measures and how they would be secured.
- 17.1.6 The description of effects is the same as presented at the Scoping Stage. The embedded environmental measures are fundamentally the same as presented at scoping with supplementary details to further demonstrate that there would be no likely significant effects arising from major accidents or disasters and how this outcome would be secured.

¹ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010110/EN010110-000006-MEFW%20-%20Scoping%20Report.pdf>



17.1.7 There is no discussion of legislation, policy or technical guidance, as the topic is scoped out and does not require any further assessment. Reference can, however, be made to Chapter 15 of the Scoping Report (**Appendix 1D**) to understand those items of relevance.

17.2 The definition of significance

17.2.1 A significant effect for major accidents and disasters focuses on risk. This differs from the way in which many other topics are assessed. Typically, other topics examine effects that are considered likely to occur and therefore are unlikely to meet the thresholds required to be considered a major accident or a disaster.

17.2.2 Guidance provided by the EC (European Commission, 2017) highlights that the context for inclusion of major accidents and disasters in EIA is to ensure that adequate focus is given to the provisions for events leading to significant risk with an objective of building resilience into a development against such effects. The bar for what may be considered significant (i.e. what can be considered to be intolerable) therefore includes much less frequent effects than are addressed in many other topic chapters.

17.2.3 Risk in the terminology of major accidents and disasters is a combination of magnitude of change and likelihood. In the Major Accidents and Disasters assessment, a significant effect would represent a level of risk that would generally be considered intolerable.

17.3 Consultation and stakeholder engagement

17.3.1 The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Chapter 4: Approach to the EIA**.

17.3.2 A summary of the relevant responses received in the EIA Scoping Opinion in relation to MA&Ds and confirmation of how these have been considered within the assessment to date is presented in **Table 17.1**.

Table 17.1 Summary of EIA Scoping Opinion responses for MA&D

Consultee	Issue raised	Response
PINS	The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development.	A description of non-significant effects arising from MA&D has been included in this PEIR in Section 17.3 .
	The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards.	The assessment undertaken at Scoping to support scoping out MA&D implicitly accounted for Annex G of PINS Advice Note 11.



Consultee	Issue raised	Response
	<p>The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment.</p>	<p>This is specifically included within the description in Section 17.4 and is embedded within our approach.</p>
PINS	<p>Any measures that would be employed to prevent and control significant effects should be presented in the ES.</p> <p>Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.</p>	<p>These are addressed in Section 17.4 and 17.7 of this chapter of the PEIR.</p> <p>For clarity, the Proposed Development is not a COMAH Establishment or a Nuclear Licensed site and consequently the two European Directives referenced are not applicable.</p> <p>The description of mitigation measures includes an Integrated Management System which is the mechanism through which the Proposed Development would comply with the Health and Safety at Work etc. Act 1974 and associated applicable regulation.</p>
PINS	<p>The Scoping Report considers that the effects of the Proposed Development with regards to major accidents and disasters are not expected to be significant. This is on the basis that existing measures are in place through legislation and/or best practice. The Inspectorate agrees that the measures described in the Scoping Report can be sufficient in addressing any likely significant effects. The ES should provide details of these measures and how these would be secured.</p>	<p>This PEIR expands upon the description of environmental measures included within the Scoping Report. Where it is possible to determine at this stage, the securing mechanism (where one is required) has been described in Section 17.7.</p> <p>The ES would provide final details for securing any embedded environmental measures which are considered to be required.</p>
PINS	<p>The ES should explain their reasoning behind the use of a 1km study area regarding impacts from major accidents or disasters. The study area should be established according to the extent of the impacts and the potential for likely significant effects rather than pre-determined distances.</p>	<p>A 1km receptor study area was initially used in the Scoping Report to identify receptors which could potentially be impacted by MA&D, as from consideration of the Proposed Development and its hazard characteristics/extents, this was anticipated to encompass any reasonably foreseeable major accident hazards. If likely significant events were identified at Scoping, then review and refinement of the study area would have taken place and further assessment undertaken.</p> <p>As the assessment at scoping determined there would not be any significant effects, no further assessment and therefore,</p>



Consultee	Issue raised	Response
		refinement of the study area has not been necessary.
PINS	Table 15.A1 states that there are no residential receptors within the Red Line Boundary (RLB). This differs from what is shown in Figure 1.1 Red Line Boundary. There are also sections of the Table which have not been populated. Any comparable table provided within the ES should be updated to address these errors.	This table has been revised in Table 17.. The only sections of the table left blank are where no receptors of this type were identified. For clarity, any receptor category where none have been identified has been removed from Table 17.. Where no receptors were identified in the Scoping study area, this is included as a note to the table.
Cambridgeshire County Council	Table 15.1: Policy CS34 Protecting surrounding Uses of the adopted Cambridgeshire and Peterborough Minerals and Waste Core Strategy should be taken into account, as this requires that here would significant [sic] harm to the environment, human health or safety, land uses, and amenity.	The referenced policy has been reviewed and this chapter of the PEIR demonstrates that there would be no significant effects arising from MA&D upon the matters referenced in the policy. Other aspect chapters including Chapter 7: Noise, Chapter 8: Air Quality, Chapter 9: LVIA, Chapter 14: Socio-economics and Chapter 16: Health consider the potential for significant effects upon matters of relevance.
Cambridgeshire County Council	The Health and Safety Executive would regulate safe operation from the site. On receipt of the EIA/ES, consultation with the HSE would be required.	The Health and Safety Executive are a statutory consultee to the Proposed Development and the DCO Application has been developed in consideration of Annex G of Planning Advice Note 11.
Fenland District Council	The Health and Safety Executive would regulate safe operation from the site. On receipt of the EIA, consultation with the HSE would be required.	The Health and Safety Executive are a statutory consultee to the Proposed Development and this application has been developed in consideration of Annex G (The Health and Safety Executive) of PINS' Advice Note 11.
HSE	<p>Would the proposed development fall within any of HSE's consultation distances?</p> <p>According to HSE's records there is one major accident site and two major accident hazard pipelines within the indicated red line boundary for this nationally significant infrastructure project; as illustrated in, figure 1.1 'Red Line Boundary' as part of the document 'MW Environment Ltd Medworth Energy from Waste Combined Heat and Power Facility EIA Scoping Report EIA Scoping report December 2019'.</p> <p>Major accident hazard site 1) HSE ref H4444; operated by H L HUTCHINSON LTD.</p> <p>Major accident hazard pipelines:</p>	<p>These sites had been identified and have been considered in the development of the Proposed Development to date.</p> <p>The EfW CHP Facility does not lie within any Land Use Planning Consultation zones as shown on the HSE Planning Advice Web App. The site identified by the HSE (Ref: H4444) is on the South side of Weasenham lane and does not have any Land Use Planning restrictions shown on the HSE Planning Advice WebApp. There is a site with Land Use Planning restrictions (presumably holding Hazardous Substance Consent on the North side of Weasenham lane. It is shown as Pike Textiles and has an Outer Zone only, the EfW CHP facility is not within this consultation zone.</p>



Consultee	Issue raised	Response
	<p>1) HSE ref 7463, operated by National Grid PLC; 4 Lings Lynn Comp / Wisbech Nene West.</p> <p>2) HSE ref 7458, operated by National Grid PLC; 2 Lings Lynn Comp/ Wisbech Nene West.</p> <p>HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.</p>	<p>The Grid Connection crosses or is in close proximity to several gas pipelines including those identified by the HSE. Any impacts during either construction or operation are addressed in the summary of effects which are not likely to be significant. These effects would be suitably managed to ensure they are Not Significant by the mitigation described in Section 17.5.</p>
HSE	<p>Consideration of risk assessments Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 An Annex on. The Planning Inspectorate's website - Annex G - The Health and Safety Executive. This document includes consideration of risk assessments on page 3.</p>	<p>The Proposed Development would not be subject to the COMAH regulations or require Hazardous Substance Consent and would not be within the consultation distances of any COMAH establishments.</p> <p>In line with Annex G of Planning Advice Note 11, the Applicant would manage workplace hazards in line with the Health and Safety at Work etc. Act 1974 and associated regulations. The assessment of (non-significant) effects is an initial qualitative risk assessment, which demonstrates that the risk can be reduced to a tolerable level.</p>
Middle Level Commissioners	<p>(viii) Chapter 12 Major Accidents and Disasters (pages 193-205).</p> <p>Comment - There are several issues which give the Boards concern these primarily relate to adverse impacts on their systems including pollution and contamination during and following an "incident". However, these concerns relate to any urban development regardless of its use.</p> <p>It is considered that issues relating to surface water disposal and flood risk can be mitigated against during the design process and would, presumably, be detailed within any FRA/Drainage Strategy submitted in support of an application.</p>	<p>These issues are addressed in the PEIR in Chapter 12: Hydrology and Appendix 12D Flood Risk Assessment.</p>
Public Health England	<p>PHE would expect the applicant to consider the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations: both in terms of their applicability to the development itself, and the development's potential to impact on, or be impacted by, any nearby installations themselves subject to these Regulations.</p>	<p>Neither of these regulations are applicable to the Proposed Development due to the low inventories of dangerous substances anticipated.</p> <p>No sites under the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations have been identified in the vicinity of the Proposed Development.</p>



Consultee	Issue raised	Response
		There is one COMAH site within 1km of the Energy from Waste Combined Heat and Power Facility. This was identified in Figure 15.1 of the Scoping Report and was not considered to lead to any significant effects, as the Proposed Development is wholly outside the HSE applied consultation distances for this site.

17.4 Description of Scoped Out Effects

- 17.4.1 This section presents the potential MA&D which were identified in the Scoping Report. Each was considered to have no likely significant effects on the basis of the environmental measures which are embedded within the design of the Proposed Development.
- 17.4.2 The scoping out of these effects was agreed by PINS subject to the measures being appropriately secured². The measures are described in **Section 17.5**. The information presented here is for information only and does not represent further assessment.

Non-significant effects identified

- 17.4.3 The following potential MA&D effects were identified, as presented in the Scoping Report, and are described in more detail below. **Table 17.2** describes the potential MA&D identified and whether they are associated with the Energy from Waste Combined Heat and Power Facility (EfW CHP Facility) or the Grid and CHP Connections. No non-significant effects were identified at the Scoping Stage for the access improvements.

Table 17.2 Non-Significant MA&D effects

Effect	EfW CHP Facility	Grid and CHP Connections
Occupational Health and Safety	Construction and Operation.	Included in Construction below.
Major Accidents involving High Voltage Electricity	Operation only. (Construction covered separately below).	Operation only
Major Accidents involving the EfW process	Operation only.	N/A
Major Accidents involving fire	Operation only. (Construction covered separately below).	N/A

² <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010110/EN010110-000010-MEFW%20-%20Scoping%20Opinion.pdf>



Effect	EfW CHP Facility	Grid and CHP Connections
Major accidents or disasters leading to structural hazards	Operation only. (Construction covered separately below).	N/A
Major accidents or disasters involving the spill of chemicals or waste materials	Operation only (Construction covered separately below).	N/A
Major accidents or disasters during construction	Construction only.	Construction only.
External accidents affecting the site population	Construction and operation.	N/A
Natural disasters affecting the site population	Operation only (Construction covered separately above).	N/A
Acts of terrorism affecting the site population	Construction and operation.	N/A

Receptors identified in the initial study area

17.4.4 The Scoping Report used an initial study area to screen for potential receptors, this area was 1km around the EfW CHP Facility, and 500m around the Grid Connection Corridor and CHP connections. All identified effects were within this area. The receptors identified within the scoping study area are provided in **Table 17.3**. This table has been updated following the refinement of the red line boundary. Whilst the receptors have been updated to reflect the refined area, this has not changed the findings of the assessment undertaken at Scoping.

Table 17.3 MA&D receptors within study area

Receptor Type	Receptor	Receptor Detail	Within EfW CHP Facility or 1km buffer	Grid Connection or CHP connection 500m buffer
Population and Human Health	Human populations on site	There would be an initial construction workforce on the EfW CHP Facility Site, CHP Connection Site and Grid Connection Site during the construction phase which would then transition to a permanent operational workforce only on the EfW CHP Facility Site during the operational phase. This site population would be supplemented by contractors and delivery drivers.	Red line boundary	Red line boundary
	Human Populations in the	Northeast of the EfW CHP Facility Site and CHP Connection Site, the area is built-up extending more than 1km from the red line boundary. The immediate area close to the	Buffer zone	Buffer zone



Receptor Type	Receptor	Receptor Detail	Within EfW CHP Facility or 1km buffer	Grid Connection or CHP connection 500m buffer
	surrounding area	<p>EfW CHP Facility Site and Grid Connection Site is mainly industrial, however there are some houses and schools located within 1km of the red line boundary. There are no hospitals within 1km of the red line boundary. To the south and west the area mainly consists of fields with no designated sites identified.</p> <p>The area surrounding the Grid Connection is predominantly rural, with fields and some residential and commercial buildings.</p> <p>Further details on residential areas within the study area are provided below this table.</p> <p>The closest hospital is North Cambridgeshire Hospital located approximately 2 km to the north of the EfW CHP Facility Site and 1 km to the west of the Grid Connection.</p>		
	The Conifers Care home	Care home located on North Brink, PE13 1LL – northwest of Main Development Site.	Buffer zone	Buffer zone
	Housing 21 Legge-Bourke Court	Sheltered housing located on Chapnall Close, PE13 3TY – west of the red line boundary.	-	Buffer zone
	Langley Lodge Residential Home	Assisted living residence located on Queens Road, PE13 2PE – north of the red line boundary.	-	Buffer zone
	MHA Edina Court Retirement Apartments	Retirement home located on Harecroft Road, PE13 1RL – north of the red line boundary.	-	Buffer zone
	Somers Court	Care home located on Somers Road, PE13 2RA – north of the red line boundary.	-	Buffer zone
	The Helping Hands Group	Adult day care centre located on Algores Way, PE13 2RN – northeast of the red line boundary.	Buffer zone	Buffer zone
	Cambian Education Foundation Learning Centre	School unit on Anglia Way – approximately 200m northeast from the Main Development Site	Buffer zone	Buffer zone



Receptor Type	Receptor	Receptor Detail	Within EfW CHP Facility or 1km buffer	Grid Connection or CHP connection 500m buffer
	J Jones	Preschool on New Drove, PE13 2RZ – north of red line boundary.	Buffer zone	Buffer zone
	Marshland High School	School on School Road, PE14 7HA – west of red line boundary.	-	Buffer zone
	The County School	School on Coalwharf Road, PE13 1JL – north of red line boundary.	-	Buffer zone
	Thomas Clarkson Academy	School on Corporation Road, PE13 2SE – west of red line boundary.	Buffer zone	Buffer zone
	Unity Academy	School located on Algores Way, PE13 2TQ – northwest from site border.	Buffer zone	Buffer zone
	Trinity School	School located on Algores Way, PE13 2TQ – northwest from site border.	Buffer zone	Buffer zone
	West Walton Area Family Centre	School located on School Road, PE14 7HA – east of the red line boundary.	-	Buffer zone
	West Walton Primary School	School located on School Road, PE14 7HA – east of the red line boundary.	-	Buffer zone
	Wisbech Grammar School	School on Chapel Road, PE13 1RH – north of the red line boundary.	-	Buffer zone
Other designated land/water	National Historic Landscape Characterisation (NHLC)	There are some areas of NHLC within the study area including orchards, planned fields or horticulture.	Buffer zone	Buffer zone
Scarce Habitat	Priority habitats	There are a few Priority Habitats found within 1 kilometre of the red line boundary, including Coastal and floodplain grazing marsh, deciduous woodland and traditional orchards. Most of the scarce habitat inventories are located southwest of the red line boundary, with the largest individual inventory having an approximate area of 10 hectares. See Chapter 8: Biodiversity for more detail.	Buffer zone	Buffer zone
Widespread Habitat - Non-Designated Water	Local watercourses	There are a number of ditches, watercourses and bodies of water within the EfW CHP Facility buffer zone and the Grid Connection. See Chapter 11: Hydrology for more detail.	Buffer zone	Red line boundary



Receptor Type	Receptor	Receptor Detail	Within EfW CHP Facility or 1km buffer	Grid Connection or CHP connection 500m buffer
Particular species	No particular populations of endangered or scarce species have been identified within the study area. Further information is available in Chapter 10: Biodiversity			
Fresh and estuarine water habitats	River Nene	Nene Lower Reference: Environment Agency Catchment Planning database https://environment.data.gov.uk/catchment-planning/	Buffer zone	Buffer zone
Soil and sediment	Surrounding ground	The site would be predominantly hardstanding but is underlain by soil.		
Historic environment	Listed Buildings (Grade I)	Church of St Peter and St Paul Wisbech, Fenland, Cambridgeshire, North of site and connection corridor.	-	Buffer zone
		14 North Brink, Wisbech, Fenland, Cambridgeshire. North of the red line boundary.	-	Buffer zone
		Peckover House, Wisbech, Fenland, Cambridgeshire. North of red line boundary.	-	Buffer zone
		19 North Brink Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
	Listed Buildings (Grade II*)	The Castle Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		6 the Crescent Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		Clarkson Memorial Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		29 Market Place Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		The Rose and Crown Inn Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		Horace Friend Warehouse Number 2 Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		Octavia Hill Birthplace Museum, 1 South Brink Place, and 7 and 8 South Brink	-	Buffer zone



Receptor Type	Receptor	Receptor Detail	Within EfW CHP Facility or 1km buffer	Grid Connection or CHP connection 500m buffer
		Wisbech, Fenland, Cambridgeshire, North of red line boundary.		
		Queen's Hill Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		15 South Brink Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		12 North Brink Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		Stable to Northwest of Peckover House Wisbech, Fenland, Cambridgeshire, North of site red line boundary.	-	Buffer zone
		8 and 9 Old Market Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
		32 Old Market Wisbech, Fenland, Cambridgeshire, North of red line boundary.	-	Buffer zone
	Listed Buildings (Grade II)	Additionally, there are a number of Grade II listed buildings within the buffer zones of the Site and Connection corridor.		
Designated Sites Nationally Important	-	None identified		
Designated Sites Internationally Important	-	None identified		
Groundwater bodies		None identified		

17.4.5 A portion of residential area in Wisbech is within the buffer zone for the CHP Connection, and some houses on the North Brink are within the buffer zone for the EfW CHP facility. The Grid Connection (common to both options) additionally passes through a residential area south of Wisbech near the crossing of Elm High Road and the A47. The corridor passes by houses on Broadend Road and the A47 crossing to the east of Wisbech, and a small number of houses to the north-east edge of Wisbech are within the buffer zone. A number of small and mostly isolated



houses in the vicinity of the A47 are within the buffer zone. The corridor passes between West Walton and Walton highway, with some houses from both areas within the buffer zone, as are the houses of the village of Ingleborough and along Mill Road and Walpole Bank.

Emergency Response

- 17.4.6 The Applicant would apply good practice in design, construction, operation and decommissioning and provide appropriate mitigation to reduce the risk of a MA&D occurring at the site to extremely low. Nevertheless, the Developer would liaise with the emergency services to ensure that appropriate emergency response arrangements are in place to limit effects in the unlikely event of a major accident or disaster.

Summary of non-significant effects

- 17.4.7 In the Scoping Report, the Applicant demonstrated that there would be no significant effects arising from Major Accidents and Disasters as a result of the measures embedded into the Proposed Development. This approach was accepted by PINS and as such, MA&D is scoped out of further assessment. This chapter is intended solely to secure the measures required to ensure no significant effects. A summary of the assessment of the MA&Ds from Scoping is provided in **Table 17.3**, to provide context to the measures described in **Section 17.5**. As described in **Section 17.2**, significance in the assessment of MA&Ds is risk based, rather than consequence based

Table 17.3 Summary of significance³ of effects

Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
Occupational Health and Safety	Onsite workforce (construction and operation)	Not Significant	<p>In this assessment, occupational accidents are defined as work-related accidents that could affect only one or two workers carrying out the task, the effects of which, do not extend to receptors within the wider environment. Under UK Health and Safety legislation, employers are required to manage the risk to their employees and others who could be affected by their activities and ensure that the risk is reduced to As Low As Reasonably Practicable (ALARP). The ALARP principle requires compliance with good practice as a minimum.</p> <p>The facility would be designed with consideration of the potential occupational health and safety hazards. These would be mitigated through application of the hierarchy of controls: i.e. hazards would be designed out or minimised where practicable, and appropriate measures to prevent and mitigate residual risks implemented.</p> <p>During the operational phase of the Proposed Development, systems to ensure compliance with all relevant UK Health and Safety legislation would be implemented. This would be delivered through the adoption of the Developer's accredited Integrated Management System (IMS), which would require risk assessments and preventative measures to be put in place. The IMS would be based on the approach used at the Developer's existing facilities, tailored to suit the Proposed Development. This IMS would achieve certification to ISO 9001, ISO 14001 and ISO 45001 during the first 18 months of operation.</p> <p>Although there is no formal visitor centre as part of the EfW CHP Facility, the Developer intends to provide space within the administration area for visitors, providing that their access onto site is pre-booked. It is intended that, when the facility is operational, there would be tours of the facilities for visitors, including school children. The hazard and risk assessment processes described above take account of the presence of these visitors and planned visit routes. Technical and administrative measures would be in place to ensure the risk to visitors is ALARP. Such visitors would be accompanied at all times, and the Developer would ensure that they comply with onsite health and safety requirements.</p>

³ See **Section 17.2**

⁴ The summary rationale is the same as that provided at Scoping, with minor amendments to update or supplement information presented.



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
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The emergency arrangements would incorporate specific provision for the visitors, including evacuation and muster tailored to the size and nature of the visitor groups. A Personal Emergency Evacuation Plan is prepared for those with disabilities. Other measures to ensure that there is no significant risk to visitors from MA&D include the prevention of visitors working onsite and that group sizes are appropriate to the age and experience of the visitors.

These occupational accidents include:

- Machinery safety;
- Falls from height;
- Operation of vehicles; and
- Electrical safety

Some specific examples of how these would be appropriately managed are given below.

Electrical hazards would be managed in line with the Electricity at Work Regulations 1989. These regulations require that hazards are designed out where practicable and suitable controls are put in place to manage the risk were not. They require that adequate space, insulation, isolation and capacity is designed into the system and that any person undertaking work on the system is competent to do so. The IMS would provide strict controls and safe systems of work for operation and maintenance of the high voltage assets on the Main Development Site, which implement the requirements of the regulations.

Machinery hazards typically only affect the workers using them but can lead to serious or occasionally, fatal injuries to those workers. These hazards do not impact the surrounding receptors and are not generally considered major accident consequences. They would be managed through safe systems of work implemented through the IMS, as well as a thorough review and risk assessment of the machinery in line with the requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998. In particular, PUWER requires that machinery is suitable for its intended use, is properly maintained and that, as far as reasonably, practicable contact with parts of the machinery that could cause injury is prevented by effective measures, such as guards and interlocks.



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
Major accidents involving High Voltage electricity	Onsite workforce (operation only) Public (Effects during construction are addressed under 'construction hazards' below)	Not Significant	<p>During the construction phase, occupational health and safety would be managed to comply with the requirements of the Construction (Design and Management) Regulations 2015. Major accidents which could occur during construction are considered below in the table.</p> <p>The EfW CHP Facility Site would provide a 132kV supply to the power grid via a combination of underground electrical cables and overhead lines. This would provide a tie-in to one of two potential UK Power Networks (UKPN) substations. The final design, route and design standard would be submitted with the ES and would have been informed through statutory consultation. The connection to the grid would either be owned and operated by the Developer or be adopted by UK Power Networks (UKPN) or an Independent Distribution Network Operator (IDNO). Whether it is owned and operated by the Developer or adopted by UK Power Networks (UKPN) or an IDNO, it would be designed and built to the relevant Electricity Network Association standards.</p> <p>HV electricity has the potential to cause fire, explosion or serious/fatal injuries to people in the event of an accident. The effects of accidents are generally localised, typically only affecting one or two people who are working on the system, but with potential to affect the public if in proximity. HV supplies are widespread across the country and necessary to maintain the electrical grid and are not considered to cause a significant effect due to the application of good industry practice.</p>
Major accidents involving the EfW process	Onsite workforce (operation only)	Not Significant	<p>The EfW process involves the combustion of solid waste in order to generate heat and power. Combustion utilises support fuel, in addition to the main self-sustaining combustion process.</p> <p>The Developer has undertaken a risk assessment on a similar facility to the Proposed Development and identified the following process major hazards:</p> <ul style="list-style-type: none"> • Fire in waste reception hall; • Explosion associated with combustion equipment; and • Overpressure in the combustion system. <p>Process hazards such as fire in the reception hall or an explosion in the combustion system, could lead to serious or fatal injuries to workers on the facility. In a fire, there would be potential for people offsite to be exposed to low levels of pollutants from smoke</p>



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
			<p>which could result in short term ill health effects. This would be managed by the emergency response, advising people to remain indoors as a precaution.</p> <p>As part of the design process, the Developer would systematically identify potential major hazards associated with the specific process and keep them under review as the design progresses. This would include a number of studies including a Hazard and Operability (HAZOP) study (compliant with IEC 61882) and would also review the adequacy of mitigation measures such as escape routes, secondary containment and fire suppression.</p> <p>Process hazards would be designed out where possible in accordance with good practice, applying the hierarchy of controls principles, which prioritise inherently safe design over control and mitigation measures. However, some of these hazards are an intrinsic part of a combustion process and therefore, as part of the design process, safety and environmental major accident hazards would be identified and assessed during the design process, to ensure that adequate technical and administrative measures are in place to reduce the risk to ALARP. Specific design mitigation measures would be applied as appropriate, such as nitrogen blanketing, fire detectors or overfill alarms.</p> <p>In order to comply with the requirements of the <i>Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)</i>, the Developer would carry out an assessment of locations where flammable materials could be present, either by design or in event of a deviation from normal operation and ensure that sufficient mitigation is in place. Mitigation could include, minimising quantities of flammable materials, optimisation of operating conditions (e.g. flow rate/pressures), containment, inert gas blanketing, and controls over ignition sources including use of ATEX rated equipment where necessary.</p>
Major Accidents involving fire	Onsite workforce (operation only) Neighbouring industrial sites (Effects during construction are addressed under 'construction hazards' below)	Not Significant	Fire is a recognised hazard within the waste industry. Fires in the EfW process are covered above. Fires in the buildings and in the storage bunkers are covered in this section. The Developer has undertaken a risk assessment on similar facilities and identified locations where fires could occur and the likely extent of the consequences. A similar assessment would be undertaken during the design process described above (Major Accidents involving the EFW process). It is expected that fires would be contained on the EfW CHP Facility Site, but smoke could affect the surrounding workplaces. Segregation and separation would be built into the design and layout, and because of this, the potential for a fire to spread to a neighbouring site is not considered significant.



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
			<p>The EfW CHP Facility would be designed and built to meet industry best practice for fire safety and provided with extensive fire protection and detection systems. This would account for the best practice measures given in ACE Technical Risks Engineering Information Bulletin Guidance Document and designed generally in accordance with NFPA 850.</p> <p>The design of the EfW CHP Facility would include measures such as infra-red fire detection systems in the waste bunker, with associated deluge fire suppression systems and water cannons, inert gas suppression systems in the electrical rooms and fire detection and suppression systems in all necessary locations e.g. the tipping hall and the turbine hall. The provision of these systems would consider the level of protection and risk required through the process risk assessment described above.</p> <p>The firewater ring main would be provided with a large firewater storage tank, the ring main serving the EfW CHP Facility Site, with electric firewater pump (and diesel back up) to ensure that firewater can be delivered when needed. There would be suitable containment available onsite (in line with CIRIA C736) to allow contaminated firewater to be retained and either discharged to sewer or disposed of via tanker removal as appropriate.</p> <p>The monitoring and maintenance of measures to prevent and mitigate fire hazards in operation would be through the IMS, which would be compliant with the requirements of the Regulatory Reform (Fire Safety) Order 2005 ensuring that the Developer maintains an up-to date fire risk assessment. The IMS would cover both safe systems of work but also detailed emergency response procedures to manage the risk of fire to ALARP. The layout design would allow for access by the emergency services.</p>
Major accidents or disasters leading to structural hazards	Onsite workforce (operation only) (Effects during construction are addressed under 'construction hazards' below)	Not Significant	The EfW CHP Facility Site includes a main building for the EfW process and two chimneys of up to 90m in height. In the event of a structural collapse, nearby people and buildings could be impacted. There are no particularly sensitive receptors immediately adjacent to the EfW CHP Facility Site, so it is predominantly the population onsite or the immediately adjacent industrial facilities that would be affected in the unlikely event of a major structural failure. The design of the facility would be undertaken by suitably qualified and experienced personnel including civil and structural engineers. The design would account for the expected ground conditions and design loads, e.g. due to wind, accounting for the effects of climate change and would be ensured through compliance with good practice



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
Major accidents or disasters involving the spill of chemicals or waste materials	Onsite workforce (operation only) Water environment and surrounding land	Not Significant	<p>in structural design, including compliance with the Eurocodes and any relevant BSI published documents. The IMS would ensure that appropriate systems of inspection and maintenance are in place to ensure continued structural integrity. As part of the application, compliance with the Building Regulations 2010 would also be provided, in particular, Part A which relates to structure.</p> <p>This would ensure appropriate design of the facility and a reduction of the risk of structural hazards during operation such as building collapse to low levels, which are considered to be ALARP.</p>
	(Effects during construction are addressed under 'construction hazards' below)	Not Significant	<p>The development would be designed in accordance with industry good practice to ensure that there is adequate secondary and tertiary containment to minimise the risk of any potential spillage of hazardous materials. Where substances may also pose a hazard to the health of workers, suitable equipment for handling substances and personal protective equipment would be provided. Any flammable substances would have preventative and protective measures applied in accordance with the requirements of the facility Safety Management System and in line with the fire scenario described above.</p> <p>As a requirement of being a permitted Site under <i>the Environmental Permitting (England and Wales) Regulations 2016</i>, an accident management plan would be maintained, which requires risk assessment of all potential releases. This risk assessment would cover all spillages, including those which have the potential to cause a major accident, whether to people or the environment and suitable prevention and mitigation measures would be put in place.</p> <p>The drainage system on the EfW CHP Facility Site would be suitably designed to ensure that any potential spills can be captured onsite and retained for treatment or disposal, this includes designing for firewater in accordance with industry standards such as CIRIA 736. All deliberate discharges would be covered in Chapter 12: Hydrology.</p>
Major accidents or disasters during the construction	Onsite workforce (construction only)	Not Significant	Any effects arising from disasters during the construction process would be identified and dealt with through appropriate risk assessment and mitigation (applying the hierarchy of controls) as required to comply with UK health and safety legislation and environmental legislation. The construction phase plan would require risk assessment of construction activities (including any necessary earthworks or demolition activities) and this



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
			<p>assessment should cover and mitigate, where necessary, the potential impact of all major accidents or disasters, including those affecting non-human receptors.</p> <p>The route of the Grid Connection would be informed by statutory consultation. National Grid, UKPN and the HSE and appropriate local authorities would be consulted in order to ensure that any pipelines or other hazardous sites along the route, such as those identified in Table 17.1 by the HSE and in the Scoping Report, are avoided entirely or crossed safely in accordance with industry standards.</p> <p>The potential major accidents arising from construction activity on the environment and human populations include a spill from temporary fuel storage tanks, collapse of excavations, fire during construction, accidents during testing/commissioning or the collapse of a crane/piling rig. While most of these accidents would affect at most, one or two workers, a structural collapse or fire during construction could affect more workers (up to 10) but are unlikely to affect members of the public as the construction activities would be segregated. Materials such as fuel oil are not expected to be held onsite in volumes that could lead to a major accident. All of the construction works would be managed in accordance with a Construction Environment Management Plan and relevant regulations such as the <i>Construction (Design and Management) Regulations 2015 (the CDM Regulations)</i>.</p> <p>Under the CDM Regulations, all structures must be designed so that they can be built and maintained safely, the designer must also 'design out' hazards where possible, by applying the hierarchy of controls and would produce a designer's risk assessment to inform the construction contractors. The construction process must be managed to take account of the risks to people affected by the work, including the public. These include measures to manage fire risk, electrical hazards and structural integrity (including excavations) throughout the construction process. This must be documented in a CDM Construction Phase Plan. This ensures that the risk of such effects occurring is extremely low and would be reduced to ALARP. This process would be managed by the construction contractor.</p>
External accidents affecting the site population	Onsite workforce (construction and operation)	Not Significant	In the Scoping Report, two sites with consent for hazardous substances and one pipeline transporting a hazardous substance were identified within 1km of the EfW CHP Facility



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
			<p>Site. The HSE identified an additional pipeline within the grid connection corridor in their Scoping response.</p> <p>The EfW CHP Facility Site is outside the consultation distances for any of these sites (as shown in the Scoping Report Section 15.4). This means that it is extremely unlikely that an accident on one of these sites could lead to a major accident at the EfW CHP Facility, either by directly impacting people or by initiating a domino accident. It also means that the HSE would be unlikely to advise against development of the EfW CHP Facility on the basis of land use planning.</p> <p>The hazard of construction activities initiating a loss of containment from a major hazard pipeline is considered above. It is possible that an incident unrelated to construction could impact construction workers, but the likelihood is extremely low, particularly when the measures described are considered.</p>
Natural disasters affecting the site population	<p>Onsite workforce (operation only)</p> <p>(Natural Disasters during construction are addressed under 'construction hazards' above)</p>	Not Significant	<p>Effects on structures due to wind and ground conditions are covered in the Major Accidents involving Structural Collapse above. The potential for natural disasters to impact the availability of safety critical personnel and safe operation of the Proposed Development would be addressed in the IMS described above.</p> <p>In the baseline, the only potential disaster identified was a lightning strike leading to fire or structural collapse on the EfW CHP Facility Site (note flooding is separately addressed within the Flood Risk Assessment (FRA) appended to Chapter 12: Hydrology). The potential consequences of a lightning strike are likely to be restricted to the EfW CHP Facility Site and is likely to affect a single or limited number of workers. The Proposed Development would be provided with adequate lightning protection compliant with BS EN 62305 (BSI, 2011) to ensure the risk from lightning is reduced further and is considered to be reduced ALARP.</p>
Acts of terrorism affecting the site population	<p>Onsite workforce (construction and operation)</p>	Not Significant	<p>Terrorism is the act of inflicting violence as a means of inflicting terror for political reasons. At the time of writing (May 2021), MI5 rates the current UK-wide threat level as substantial which means an attack in the UK is considered "likely"⁵. The National Risk Register lists several types of terrorism or malicious acts, which include attacks on publicly accessible locations, attacks on transport systems, cyber attacks, Chemical, Biological, Radiological</p>

⁵ MI5 Threat Levels. Available online at: <https://www.mi5.gov.uk/threat-levels> [Accessed 17 May 2021].



Major accident/ disaster and summary of predicted effects	Receptor	Significance of effect	Summary rationale ⁴
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or Nuclear (CBRN) attack or attacks on critical national infrastructure⁶. The Proposed Development is not a transport network, nor is it considered to be a crowded place as there is unlikely to be members of the public regularly present or large gatherings of people. The Proposed Development would constitute a theoretical target for Cyber or CBRN attack but in comparison to previous terrorist activity, the Proposed Development is considered to represent a “low value” and low priority target as there would be secured access and a lower population than other targets such as pedestrian areas, concert venues or transport hubs.

Finally, the Centre for the Protection of National Infrastructure (CPNI) sets the definition of Critical National Infrastructure (CNI)⁷ which can be summarised as *those critical elements of infrastructure... the loss or compromise of which... could result in significant loss of life or casualties ... and/or Significant impact on national security, national defence, or the functioning of the state*. The Proposed Development is not considered to be CNI. The potential effects on the Proposed Development of terrorism are not considered significant.

⁶ Cabinet Office National Risk Register(2020).

⁷ Centre for the Protection of National Infrastructure Critical National Infrastructure. Available online at: <https://www.cpni.gov.uk/critical-national-infrastructure-0> [Accessed 17 May 2021]



Cumulative effects

17.4.8 As there are no anticipated significant effects, there is no anticipated potential for cumulative effects arising from major accidents and disasters.

17.5 Embedded environmental measures

17.5.1 A range of environmental measures have been embedded into the development proposals as outlined in **Chapter 3 Section 3.5. Table 17.4** outlines how these embedded measures would influence the MA&D assessment.

Table 17.4 Summary of the embedded environmental measures and how these influence the MA&D assessment

Potential Major Accident or Disaster	Changes and effects	Embedded measures and influence on assessment
Occupational Health and Safety	No significant effects	<p>An Integrated Management System (IMS) would be implemented to ensure compliance with all UK Health and Safety, and Environmental legislation. The IMS would be based on the approach used at the Developer's existing facilities, tailored to suit the Proposed Development. The IMS for the Proposed Development would achieve certification to ISO 9001, ISO 14001 and ISO 45001 during the first 18 months of operation.</p> <p>The IMS would be developed to ensure risk assessment processes, safe systems of work, management of visitors, emergency response procedures and compliance with other requirements (such as PUWER and the Electricity at Work Regulations) are satisfactorily managed. The IMS processes would ensure that the risk is reduced to ALARP for Occupational Accidents. The IMS would implement the Developer's UK Safety, Quality, Wellbeing, Energy, Environment, Community and Health (SQWEECH) policy. These measures ensure there would be no significant effects.</p>
Major accidents involving High Voltage electricity	No significant effects	<p>The design, route and design standard of the Grid Connection would be finalised ahead of application submission and reported within the ES. It would be informed through statutory consultation. The connection may either be owned and operated by the Developer, or by UKPN or an IDNO. This would be confirmed at a later date.</p> <p>The design of the system is in line with current standards for HV power transmission. HV supplies are widespread across the country and necessary to maintain the electrical grid, which clearly do not have significant effects on the public. These measures ensure there would be no significant effects.</p>
Major accidents involving the EfW process	No significant effects	<p>The Developer would systematically identify potential major hazards during the design process. This would include a number of studies including a Hazard and Operability (HAZOP) study (compliant with IEC 61882) and would also review the adequacy of mitigation measures such as escape routes, secondary containment and fire suppression. The design process would apply the hierarchy of controls which prioritises inherently safe design over control and mitigation measures.</p>



Potential Accident or Disaster	Major or	Changes and effects	Embedded measures and influence on assessment
Major Accidents involving fire		No significant effects	<p>Emergency response procedures would be developed to respond and mitigate any reasonably foreseeable major accident hazards.</p> <p>The Developer would comply with the requirements of the <i>Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)</i>.</p> <p>These measures ensure there would be no significant effects.</p> <p>A Fire Risk Assessment would be undertaken during the design process.</p> <p>Fire segregation and separation would be built into the design and layout, and because of this, the potential for a fire to spread to a neighbouring site is not considered significant.</p> <p>The Proposed Development's buildings and storage systems would be designed and built to meet industry best practice for fire safety and provided with extensive fire protection and detection systems. This would include the measures described in ACE Technical Risks Engineering Information Bulletin Guidance Document and design generally in accordance with NFPA 850.</p> <p>The EfW CHP Facility Site would be provided with a fire ring main and firewater storage tank in line with the design standards proposed.</p> <p>The monitoring and maintenance of measures to prevent and mitigate fire hazards in operation would be through the IMS, which would be compliant with the requirements of the Regulatory Reform (Fire Safety) Order 2005 ensuring that the Developer maintains an up-to date fire risk assessment. The IMS would cover both safe systems of work and also detailed emergency response procedures to minimise the risk of fire to ALARP.</p> <p>These measures ensure there would be no significant effects.</p>
Major accidents or disasters leading to structural hazards		No significant effects	<p>The design of the facility would be undertaken by suitably qualified and experienced personnel including civil and structural engineers. The design would account for the expected ground conditions and design loads, e.g. due to wind, accounting for the effects of climate change. The design would comply with good practice in structural design including compliance with the Eurocodes and any relevant BSI published documents.</p> <p>The IMS would ensure that appropriate systems of inspection and maintenance are in place to ensure continued structural integrity.</p> <p>The Proposed Development would comply with the <i>Building Regulations 2010</i>.</p> <p>These measures ensure there would be no significant effects.</p>
Major accidents or disasters involving the spill of chemicals or		No significant effects	<p>The Proposed Development would be designed in accordance with industry good practice to ensure that there is adequate secondary and tertiary containment to minimise the risk of any potential spillage of hazardous materials.</p>



Potential Accident or Disaster	Major or	Changes and effects	Embedded measures and influence on assessment
waste materials			<p>Where substances may also pose a hazard to the health of workers, suitable equipment for handling substances and personal protective equipment would be provided.</p> <p>An accident management plan would be maintained, which requires risk assessment of all potential releases.</p> <p>The drainage system on the EfW CHP Facility Site would be suitably designed to ensure that any potential spills can be captured onsite and retained for treatment or disposal, this includes designing for firewater in accordance with industry standards such as CIRIA 736.</p> <p>These measures ensure there would be no significant effects.</p>
Major accidents or disasters affecting the construction		No significant effects	<p>All activities would be risk assessed and the hierarchy of controls applied to reduce any reasonably foreseeable risks to ALARP.</p> <p>All construction activities would comply with the CDM Regulations.</p> <p>The route of the Grid Connection would be finalised following statutory consultation. Appropriate local authorities and/or HSE would be consulted to ensure all hazardous sites and utilities have been identified.</p> <p>These measures ensure there would be no significant effects.</p>
External accidents affecting the site population		No significant effects	<p>The design, location and layout of the Proposed Development are in compliance with HSE's approach to Land Use Planning. This embedded facet of the design ensures no significant effects from MA&D.</p>
Natural disasters affecting the site population		No significant effects	<p>Lightning protection designed to BS EN 62305 reduces the risk to ALARP. This measure ensures there would be no significant effects.</p> <p>Measures affecting the FRA are described in Chapter 12 of the PEIR.</p> <p>The potential for natural disasters to impact the availability of safety critical personnel and safe operation of the facility would be addressed in the IMS described above.</p>
Acts of terrorism affecting the site population		No significant effects	<p>The fundamental nature of the Proposed Development is considered to be low risk. No specific embedded measures.</p>

Note: Where specific legislation, regulations, design standards or approaches are mentioned in the embedded measures, it is intended that this should be interpreted to mean 'to an equivalent or better standard'. If new design standards (or set of regulations) are published between the application and the finalisation of design, the DCO should not preclude improvements in the design.



17.6 Consideration of optional additional mitigation or compensation

- 17.6.1 No additional mitigation measures are proposed at this stage to further reduce the MA&D effects that are identified in this PEIR, as there are no significant effects.
- 17.6.2 This is because all relevant and implementable measures have been embedded into the development proposals and are assessed above in this chapter. These measures are considered to be effective and deliverable.
- 17.6.3 However, in line with UK Health and Safety regulatory requirements, the risk assessments would be regularly reviewed throughout the project lifecycle with the objective of continuous improvement.

17.7 Implementation of environmental measures

- 17.7.1 **Table 17.5** describes the environmental measures embedded within the Proposed Development and the proposed means by which they would be secured. Some of these items would be finalised and included within the DCO application, while others secure processes that would occur after consent is granted and throughout the lifecycle of the development.

Table 17.5 Summary of environmental measures to be implemented – relating to MA&Ds

Environmental Measure	Responsibility for Implementation	Proposed compliance mechanism	ES section reference
<p>An Integrated Management System (IMS) would be implemented to ensure compliance with all UK Health and Safety, and Environmental legislation. The IMS would be based on the approach used at the Developer's existing facilities, tailored to suit the Proposed Development. This IMS would achieve certification to ISO 9001, ISO 14001 and ISO 45001 during the first 18 months of operation,</p> <p>The IMS would be developed to ensure risk assessment processes, inspection/maintenance, safe systems of work, management of visitors, emergency response procedures and compliance with all legal or other requirements (such as PUWER, LOLER, DSEAR, RR(FS)O, Electricity at Work and the Management of Health and Safety at Work Regulations). The objective of the IMS would be to ensure that any Safety or Environmental risks are reduced to ALARP.</p>	The Developer	TBC	TBC
<p>The final design, route and design standard of the HV cables would be in compliance with the Energy Networks Association's relevant technical standards.</p>	The Developer	Embedded into the design	TBC



Environmental Measure	Responsibility for Implementation	Proposed compliance mechanism	ES section reference
The Developer would systematically identify all potential safety and environmental major hazards during the design process. This would include a number of studies including a Hazard and Operability (HAZOP) study (compliant with IEC 61882) and would also review the adequacy of mitigation measures such as segregation for fire risk, escape routes, secondary containment and fire suppression.	The Developer	Embedded into the design	TBC
The Proposed Development would be designed and built to meet industry best practice for fire safety of buildings and storage systems, which is given as NFPA 850 and the ACE Technical Risks Engineering Information Bulletin Guidance Document.	The Developer	Embedded into the design	TBC
The design of the Proposed Development would be undertaken by suitably qualified and experienced personnel including civil and structural engineers.	The Developer	CDM	TBC
The design of the Proposed Development would account for the expected ground conditions and design loads, accounting for the effects of climate change.	The Developer	Design Standards	TBC
The design of the Proposed Development would comply with good practice in structural design including compliance with the Eurocodes and any relevant BSI PDs.	The Developer	Embedded into the design	TBC
The Proposed Development would comply with the <i>Building Regulations 2010 (as amended)</i> .	The Developer	Regulatory Requirement	TBC
The EfW CHP Facility Site and drainage systems would be designed in accordance with good industry practice to ensure that there is adequate secondary and tertiary containment including firewater retention in line with CIRIA C736	The Developer	Design Standards	TBC
Where substances may also pose a hazard to the health of workers, suitable equipment for handling substances and personal protective equipment would be provided.	The Developer	Regulatory Requirement	TBC
An accident management plan would be maintained, which requires risk assessment of all potential releases.	The Developer	Environmental Permit	TBC
All construction activities would be risk assessed in line with Industry Good Practice and HSE guidance. The risk assessments would have consideration of major accidents and disasters and the hierarchy of controls applied to reduce any reasonably foreseeable risk to ALARP.	The Developer	CDM regulations	TBC
All construction activities would comply with the CDM Regulations.	The Developer	Regulatory Requirement	TBC



Environmental Measure	Responsibility for Implementation	Proposed compliance mechanism	ES section reference
The HSE or appropriate local authorities would be consulted to ensure that any crossings or work required in the vicinity of pipelines is undertaken safely.	The Developer	CDM Regulatory Requirement	TBC
The design, location and layout of the Proposed Development are in compliance with HSE's approach to Land Use Planning. This embedded facet of the design ensures no significant effects from MA&D.	The Developer	Embedded in the design	TBC
Lightning protection designed to BS EN 62305 reduces the risk to ALARP. This measure ensures there would be no significant effects.	The Developer	Embedded in the design	TBC

Note: Where specific legislation, regulations, design standards or approaches are mentioned in the embedded measures, it is intended that this should be interpreted to mean 'to an equivalent or better standard'. If new design standards (or set of regulations) are published between the application and the finalisation of design, the DCO should not preclude improvements in the design.

17.8 Next Steps

- 17.8.1 The preliminary assessment presented in this chapter is based on information obtained to date. It would be further influenced by responses received during the statutory consultation.
- 17.8.2 The final assessment would be presented in the ES submitted with the DCO Application.

