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Teesside Renewable Energy Plant



Port Clarence Energy Limited

Environmental Risk Assessment

Document approval

	Name	Signature	Position	Date
Prepared by:	James Sturman		Lead Consultant	24/02/2023
Checked by:	Katie Hampton		Associate Senior Consultant	24/02/2023

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1 Introduction

Port Clarence Energy Limited (PCEL) are applying to the Environment Agency (EA) for a variation to their current Environmental Permit (EP) for the Teesside Renewable Energy Plant (the Facility), on Koppers Road, Huntsman Drive, Port Clarence, Stockton on Tees, TS2 1TT.

The EP variation application is to convert the Facility from a waste biomass fuelled facility (waste co-incineration facility) to a waste incineration facility.

The aim of this document is to consider the following in relation to the conversion to the combustion of RDF:

1. identify potential risks that the activity may present to the environment;
2. screen out those that are insignificant and don't require detailed assessment;
3. identify potentially significant risks, where appropriate;
4. choose the right control measures, where appropriate; and
5. report the findings of the assessment.

This document has been developed to consider the requirements of Environment Agency Guidance Notes H1 Annexes A, C, H and F. As the environmental impacts associated with the operation of the Facility have been considered within the Supporting Information, they have not been repeated within this environmental risk assessment.

1.1 Risk Assessment Process

This assessment has been developed in accordance with the Environment Agency Guidance Note H1. This guidance promotes four key steps:

1. identify risks from the activity;
2. assess the risks and check that they are acceptable;
3. justify appropriate measures to control the risks; and
4. present the assessment.

1.2 Step 1 – Identify risks

The following report will identify the activities that present different types of risk to the environment associated with the operation of the Installation following conversion of the Facility to combust RDF.

Within this report, PCEL has only considered the environmental risks as considered within the Environmental Risk Assessment submitted in support of the original EP application which will change following conversion. PCEL has considered all of the environmental risks and has concluded that the only changes will be associated with odour.

1.3 Step 2 – Assess the Risk

This report is intended to provide a review of the risks associated with the operation of the Installation following the proposed conversion of the Facility to combust RDF, and will identify the:

1. hazard;
2. receptor; and
3. pathway.

1.4 Step 3 – Justify appropriate measures

This report will demonstrate that the risks associated with the operation of the Installation have been considered and identify the control measures which will be in place to demonstrate that the risks are being appropriately managed.

1.5 Step 4 – Present the Assessment

The assessment will conclude by presenting the following:

1. possibility of exposure;
2. consequence; and
3. the overall risk.

The report will present the Overall Risk applying the Environment Agency's H1 criteria, defined as:

1. insignificant;
2. not significant; and
3. significant.

2 Table A1 - Odour Risk Assessment and Management Plan

What Do You Do That Can Harm and What Could Be Harmed?			Managing The Risk	Assessing The Risk		
Hazard	Receptor	Pathway	Risk Management	Possibility of Exposure	Consequence	What is the Overall Risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance and probability and consequence.
Odorous emissions may occur during the delivery of RDF	Nearby sensitive receptors/ households	Air	RDF will be delivered in enclosed waste delivery vehicles.	Unlikely	Statutory Nuisance from odour complaints.	Insignificant
Fugitive emissions of odour from RDF reception/storage areas	Nearby sensitive receptors/ households	Air	The waste reception area will be held under negative pressure. A carbon filter system will treat the extracted air to abate potentially odorous emissions from being released from waste reception areas.	Unlikely	Statutory Nuisance from odour complaints.	An Odour Management Plan has been developed for the Facility, refer to Appendix G.
Odour emissions from the main stack	Nearby sensitive receptors/ households	Air	The combustion process will destroy all potentially odorous compounds.	Unlikely	Statutory Nuisance from odour complaints.	Insignificant

ENGINEERING  CONSULTING

FICHTNER

Consulting Engineers Limited

Kingsgate (Floor 3), Wellington Road North,
Stockport, Cheshire, SK4 1LW,
United Kingdom

t: +44 (0)161 476 0032

f: +44 (0)161 474 0618

www.fichtner.co.uk