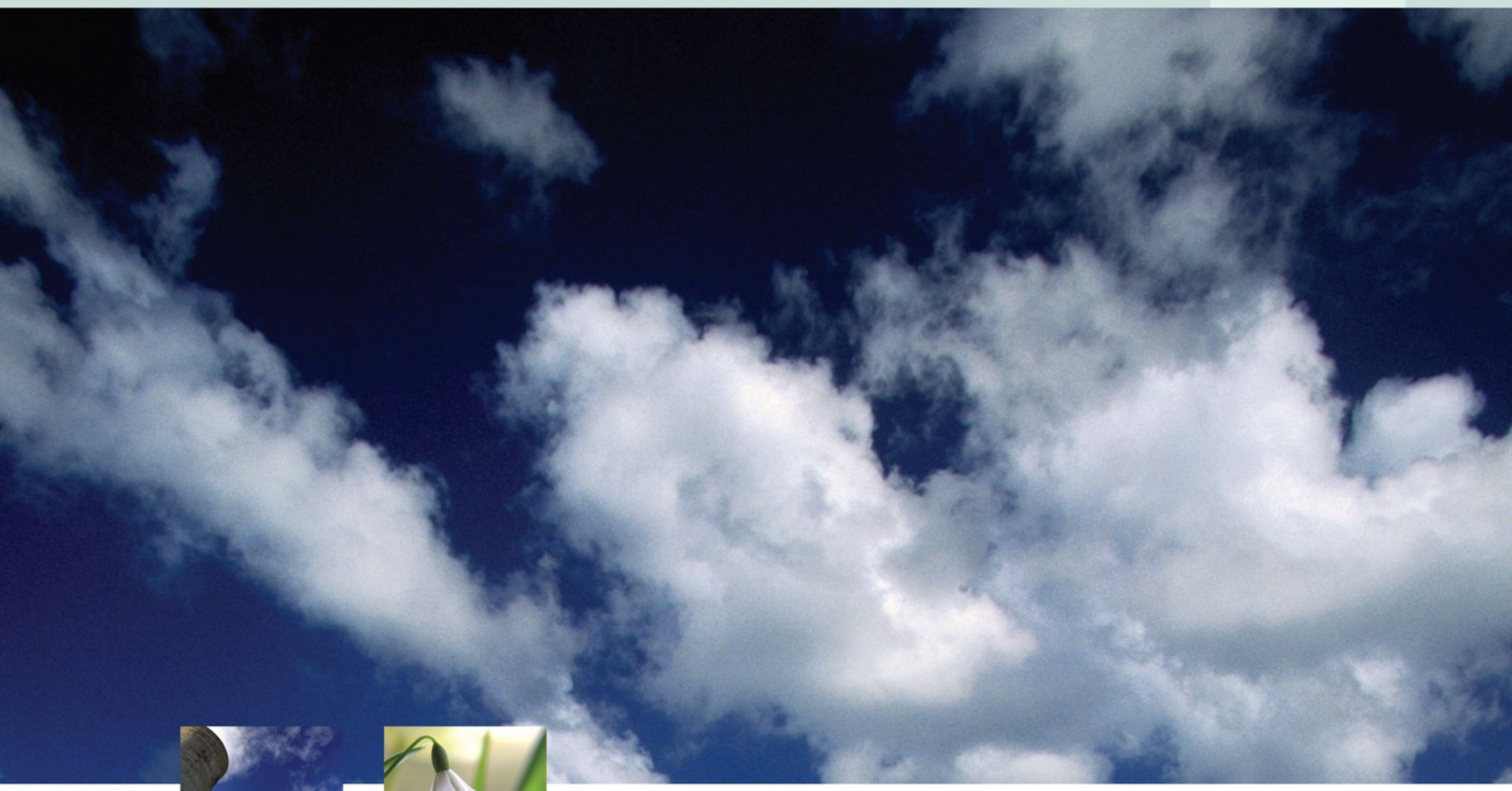

ENVIRONMENTAL RISK ASSESSMENT

Peel L&P Environmental Protos Ltd

SRF Pelletising Plant

Prepared by:
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1. INTRODUCTION

As part of an application for an environmental permit, Operators must assess the risk to the environment and human health from the activities they seek to permit. This Environmental Risk Assessment has been undertaken in accordance with the online guidance for undertaking environmental risk assessments. Environmental risks relevant to the proposed activities are:

- Emissions to Air;
- Emissions to Water;
- Emissions to Land;
- Odour;
- Dust;
- Noise;
- Litter;
- Pests;
- Vandalism;
- Fire; and
- Incompatible Feedstock.

For each of the above environmental criteria the approach to the assessment has followed the following four stage process:

- Identify the risks;
- Assess the risks (assuming those control measures proposed are in place);
- Choose appropriate further measures to control these (if required); and
- Present the assessment.

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Environmental Risk Assessment						
Hazard	Receptor	Pathway	Risk Management Techniques	Probability of Exposure	Consequence	Overall Risk (following Mitigation)
Point Source \ Releases to Air	Atmosphere	Airborne	• The site will have 7 point source emissions to atmosphere, two from the boiler plant onsite (A1 – A2), four from the drier stacks (A3 – A6) and a multiflued stack from the four carbon filter units (A7). • Two hot water boilers will be installed on site to provide the heat required by the driers. These both have a capacity of 6.5MW and will utilise Natural Gas LNG, with emissions via two 20 m high stacks (A1 and A2). • Due to having a rated thermal input equal to or greater than 1 megawatt but less than 50 megawatts, the boiler plant meets the description of a Medium Combustion Plant. • As such, all emission concentrations from the boiler plant will be in line with those ELV's specified in the Medium Combustion Plant Directive. • Two belt driers will be installed onsite for the removal of moisture from treated waste material. These driers fall under the description of physico-chemical treatment of waste within the Waste Treatment BREF and as such emissions of dust from the four 20 m high stacks (A3 – A6) will be below 5mg/Nm^3. • An air quality assessment of emissions to atmosphere from the proposed development has been carried out and provided within *Annex D – Air Quality Assessment.* • The report concludes that predicted pollutant concentrations at sensitive receptor locations are not significant compared with the air quality standards and objectives set for the protection of human health. • The report concludes that under normal operation the impact at the habitat sites would not be significant. • In accordance with the Medium Combustion Plant Directive, periodic monitoring of the boiler stacks will be carried out within four months of the start of operation and at least every three years in accordance with	Low: offsite receptor impacts	Air Pollution	LOW due to the proposed processes on site

			Technical Guidance Note (Monitoring) M5 – Monitoring of Stack Gas Emissions from Medium Combustion Plants and Specified Generators. • Dust emissions from the drier stacks will be monitored every 6 months in line with the BAT requirements of the Waste Treatment BREF.			
Emissions to Water	Groundwater / Geology / Surface Water	Waterborne	• There will be no direct process emissions to controlled water arising from the Installation. • The entire site is constructed upon sealed concrete hardstanding. • The site will have a sealed drainage system. All uncontaminated surface water runoff will be discharged via a series of interceptors/silt traps to the existing surface water ditch adjacent to the site. This ditch is part of the wider Protos Development Site strategic drainage network. • There is a potential for wind-blown rain to enter the covered storage area. As such, this area is fitted with a drainage system which will capture any potential run-off which will be collected within a holding tank for removal from site via tanker. • Under normal operation the bunded external drainage area will be connected to the surface water system. However, in the event that the quarantine area is in use, the drainage system will be isolated and drainage will be diverted to the holding tank. • There is no process water arising from the operation of the proposed plant. • Domestic effluent will be treated via an onsite package treatment plant prior to discharge to the drainage ditch adjacent to the site. This plant will be in line with the relevant BS standards and emissions will be in line with the relevant limits. • In the unlikely event of a fire, all potential firewater can be contained within the reception bays onsite and tankered offsite to a suitable water treatment facility.	Low: all runoff is controlled on site, therefore the probability of exposure is low.	Contamination	VERY LOW due to the proposed management techniques and drainage arrangements
Emissions to Land	Groundwater / Geology	Spills / Leaks	• There will be no emissions to land arising from the proposed facility. • The operational area of the site will be covered by good quality hardstanding, removing any potential pathway to land. • Spill kits will be strategically located around site.	Low: spills / leaks could potentially contaminate	Contamination	VERY LOW due to the proposed risk

			• Minor spills to be cleaned up immediately, using spill kits. Resultant materials to be placed in container for off-site disposal to appropriate facility, if necessary. • Immediate action to be taken in event of any major spills. Spillage to be cleared immediately and placed in containers for offsite disposal. The EA to be informed.	the ground / groundwater underneath the site.		management techniques
Noise	Local Residents	Airborne	• A benchmarking noise assessment has been undertaken to determine rating levels at which the plant will have no adverse impact at nearby receptors. This is provided within *Annex F –Noise Assessment.* • This assessment is based upon the existing noise climate as ascertained through a background noise survey and the levels determined will be met by the design of the plant. • Due to the industrial location of the site and the lack of residential receptors, noise is not considered to be a potential issue. • During the commissioning and operation of the proposed plant, all noise sources will be assessed and mitigation measures will be implemented if considered necessary. • Consideration has been given to the specification of the equipment to reduce noise level at source from the individual plant items and the building fabric also mitigates against noise. • All plant and equipment will continue to be assessed to ensure that it gives rise to the lowest practicable noise levels during operations. • The facility will not give rise to reasonable cause for annoyance. In the unlikely event that complaints are received measures described in the integrated management system will be put in place.	Medium: due to the nature of the activities, noise emissions from the plant are inevitable and could cause offsite receptor impacts	Nuisance	LOW due to the proposed risk management techniques
Odour	Local Residents	Airborne	• The site is approximately 650m from the nearest residential dwelling and is situated in a heavily industrialised location. The location is therefore not considered to be sensitive to odour. • Stringent pre-acceptance, acceptance and rejection procedures will prevent any malodourous materials from entering site or being processed through the drier. • All vehicles delivering and collecting materials from the site are covered. • All waste processing operations take place within the enclosed building. • .	Medium: due to the nature of the activities, odour emissions from the plant	Nuisance	LOW due to the proposed risk management techniques

			• Potentially odorous air from the reception hall of the building is extracted and treated through four carbon filter units; • The extraction system in the Reception Hall maintains slight negative pressure, ensuring no escape of odorous air when roller shutter doors are opened; • Incoming wastes will typically be processed within 72 hours of arrival onsite (max 5 days to account for bank holidays) and is stored internally, • There is no external storage of waste. Pellets are stored within silos and the covered storage area. The pelletised product is by its nature non-odorous. • Stringent management controls in place regarding the quality of bale wrapping ensure that no odorous air can escape from the bales themselves prior to export; • In addition, short term bale storage pending collection is internal within the Reception Hall; • Emissions from the drier will not be odorous due to the nature of the waste being dried, namely refined organic and food waste free. • Emissions from the drying plant and carbon filters have been considered in the Odour Impact Assessment which has been included within *Annex E – Odour Impact Assessment.* • The report concludes that an emission concentration of 5,000 ou_E/m^3 from the drying plant is recommended which will result in a negligible impact for the combined sources at residential locations with predicted concentrations less than 10% of the odour benchmark. This odour concentration will be easily achievable and will be validated during the commissioning of the plant, along with the efficiency of odour abatement from the carbon filter units.	are possible and could cause offsite receptor impacts		
Dust	Local residents	Airborne	• No processing activities take place externally. All processing takes place within the enclosed building. • There are strict pre-acceptance, acceptance and rejection procedures in place to ensure that no material exhibiting dusty properties is accepted onto site.	Low: due to proximity of closest receptors	Nuisance	**Low –** due to the proposed management techniques

			• Cyclones and dust filters are incorporated within the pelletising line to ensure dust is captured and recirculated through the process for incorporation into the fuel pellets. • Vehicle speeds will be reduced to 5mph on site which is a recognised method of controlling dust. • All plant will be regularly maintained, inspected and kept clean to avoid a build-up of material, which may lead to dust emissions. • Site drainage and containment systems and associated infrastructure will also be regularly cleared and maintained as required to ensure they are working correctly. • All incoming / departing loads will be appropriately sheeted or tipped in designated areas. • The facility will not give rise to reasonable cause for annoyance. In the unlikely event of any complaints, these will be dealt with in accordance with the sites complaints procedures. • All point source dust emissions from the driers will be < 5 mg/m^3 in line with the BAT-AELs outlined within the Waste Treatment BREF.			
Litter	Local Residents	Airborne	• All waste unloading and processing takes place within the enclosed building; • There is no external storage of waste. Pellets are stored within silos and the covered storage area. • Stringent management controls in place regarding the quality of bale wrapping ensure that no litter air can escape from the bales themselves prior to export; • Short term storage of bales pending collection is within the Reception Hall; • Storage of the pellets prior to export is within enclosed pellet storage silos; • All incoming and exporting waste vehicles will be covered. • The site access and site services shall be swept as necessary. • The site shall be inspected daily by the site manager and any litter or accumulated debris shall be dealt with immediately.	Low: the occurrence of litter on site is highly unlikely therefore the probability of exposure is very low.	Nuisance	**VERY LOW** due to the proposed risk management techniques

Pests	Local Residents	Airborne & migration	• Pests are not likely to become a problem on site. • However, if a problem does develop, reasonable measures will be taken to use commercially available products and services to control pests. • If a particular waste is determined to be the cause of a problem it shall be removed from site at the earliest available opportunity and consideration given to mitigation measures that may be implemented before any more waste from that source is accepted on site.	Low: the occurrence of pests on site is highly unlikely.	Nuisance	VERY LOW due to the proposed risk management techniques
Vandalism	Operator	The site could be subject to intentional vandalism and damage by intruders / trespassers who could cause damage or harm to the site or cause fires.	• The site will have CCTV monitoring and will be manned 24/7. • The site will be well lit and secure. • All visitors to the site will be required to register in the visitor's book and sign out again on exit, thereby minimising the risk of unauthorised visitors on the site.	Low: the occurrence of vandalism taking place on site is highly unlikely.	Nuisance, Damage or Fire	VERY LOW due to the proposed risk management techniques
Fire on site	Operator / Residential Properties	Windborne	• Arson by intruders is controlled via CCTV monitoring and site being manned 24/7. • The site is well lit and secured by a perimeter fence. • The building is equipped with a fire detection and suppression system which would immediately identify any fire within the waste bunkers. • All waste storage duration times are well within the EA's Fire Prevention Plan Guidance.	Low: the occurrence of a fire taking place on site is highly unlikely	Fire	VERY LOW due to the proposed risk management techniques

			• The site has a regular inspection and maintenance programme which identifies any electrical or mechanical machinery faults which could result in a machinery fire. • Machinery is regularly cleaned to remove any dust, etc; • All equipment on site is equipped with dedicated fire suppression. • A number of fire extinguishers are placed at strategic locations around the plant. • The potential for sparks is regularly monitored by site staff. • The risk of damaged or exposed electrical cables is controlled via the regular inspection and maintenance programme. • Staff and visitors are only permitted to smoke within the designated smoking area outside the operational area. • There is no smoking permitted within the operational area of the site. • The site has a detailed Fire Prevention Plan. This can be seen in *Annex J – Fire Prevention Plan*			
Incompatible Feedstock	Operator / Residential Properties	If incorrect waste is accepted on site it could result in adverse emissions	The following methods will be implemented to ensure that incompatible feedstocks do not compromise the safe operation of the plant: • All waste accepted onto site have been subject to 'pre-acceptance' in accordance to established procedure PE-E01; • All waste is accepted in accordance with established procedure PE-E02; • Any non-conforming waste will be removed prior to acceptance in accordance with established procedure PE-E03. Records of incidents involving incompatible compatible will be kept on site together with a summary of the remedial action taken.	Low: off site receptor impacts	Nuisance / Adverse Emissions	**VERY LOW** due to the proposed risk management techniques