Client: Checkfire Limited
Address: Sir Alfred Owen Way, Pontygwindy Industrial Estate, Caerphilly, CF83 3HU

Checkfire Limited, Unit 10B, Sir Alfred Owen Way, Pontygwindy Industrial Estate, Caerphilly, CF83 3HU

Application for Bespoke Environmental Permit

Climate Change Risk Assessment

08 July 2025

Our Reference: Checkfire Ltd-Climate Change-RP08-Final

Waste And Industry Compliance Ltd

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Checkfire Ltd-Climate Change-RP08-Final

Version & Status	Date Produced	Prepared, Checked and Authorised by:
Draft v1	11/06/2025	Waste and Industry Compliance Ltd.
Final	08/07/2025	Waste and Industry Compliance Ltd.

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CONTENTS

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 This Climate Change Risk Assessment (OMP) has been prepared on behalf of Checkfire Limited ***(the Operator)*** for Unit 10B, Sir Alfred Owen Way, Pontygwindy Industrial Estate, Caerphilly, CF83 3HU ***(the Site)***. It has been prepared in accordance with www.gov.uk guidance 'Climate change: risk assessment and adaptation planning in your management system' (https://www.gov.uk/guidance/climate-change-risk-assessment-and-adaptation-planning-in-your-management-system) and Welsh Government guidance 'Adapting to Climate Change: Guidance for Flood and Coastal Erosion Risk Management Authorities in Wales'.

1.1.2 Checkfire Limited was established in 1975 and is a leading supplier of fire extinguishers and high-quality ancillary equipment to trade customers in the UK and overseas.

1.1.3 The Site receives of out of date, spent and no longer required fire extinguishers from customers, which are safely emptied and decommissioned at the facility. Small quantities of associated packaging wastes are also received from customers, such as carboard, plastic wrapping and containers used to transfer the fire extinguishers to the Site. All packaging waste arises from the supply or return of fire extinguishers to or from customers.

1.1.4 The Site incorporates an enclosed and roofed concrete block and steel portal framed building fitted with impermeable concrete slab throughout. An external yard in front of the building comprises a combination of engineered concrete and block surfaces and is used for the storage of packaging waste in an enclosed and lidded skip. Deliveries of out of date, spent or no longer required fire extinguishers are off-loaded and transferred into the building for storage and processing.

1.1.5 The building has been engineered to ensure that all liquids are contained within, with no drainage outlets to the external environment. A drainage channel along the inside of the building leads to a dedicated concrete sump, where any inadvertent spillage of fire extinguisher media is collected before being pumped to an IBC for authorised disposal off-site.

1.1.6 A second lateral drain has been installed inside the building, across the entire width of the roller shutter vehicular access door and pedestrian access door to prevent any possible escape of inadvertent liquid spillages through the doors to the external environment. The drain falls to a dedicated concrete sump and has been installed so that it is not possible for any liquids to by-pass it, e.g. by draining around the sides. The lateral drain ties into the sides of the sealed building walls, thereby preventing any possibility of liquids by-passing the drain.

1.1.7 Any accidental spillages or leakage of liquid or foam from IBCs or fire extinguishers inside the building that drains towards the building access doors would collect in the drain and then fall to the concrete sump, from where it would be pumped to an IBC inside the building for authorised disposal off-site.

1.1.8 There is an external lateral drain across the yard that drains run-off water from the building roof. This drain leads to the Nant yr Aber, which is a tributary of the River Rhymney. The Operator has installed a manual shut off valve in the external drain, so that in the event of any potentially polluting liquids from the Site entering the drain, they could be prevented from draining into the Nant yr Aber by closing the shut off valve.

1.1.9 Guidance 'Climate change: risk assessment and adaptation planning in your management system' states that climate projections show that there will be an increased risk of:

- Extreme rainfall, leading to more frequent and severe floods;
- Heat waves;
- Drought;
- Rise in sea levels and tidal surges;
- Storms;
- Wildfires.

1.1.10 The guidance requires that operators take into account the implications of climate change projections in their environmental management system, via:

- Preparation;
- Identification of potential impacts;
- Carrying out a risk assessment;
- Finding control measures;
- Writing an adaption plan;
- Monitoring, recording and reviewing the adaption plan.

2 PREPARATION

2.1.1 Checkfire Limited will incorporate this Climate Change Risk Assessment into the Site's Environmental Management System (Checkfire Ltd-EMS-RP03).

2.1.2 As part of this process, monthly management meetings will be held which will review any non-conformances or complaints, the date of any incidents (including any that arise due to climate change such as flooding, heat waves, wildfires etc), who reported the incident, a description of the incident, who investigated the incident, what were the actions or outcomes of the investigation (including any mitigation measures) and whether the incident has been addressed and closed or is still ongoing.

2.1.3 Checkfire Limited will undertake an annual audit of the Site's EMS and associated procedures. The findings and results of the audit will be conveyed to senior management, who will review the findings and implement any recommended or required actions. Senior

management will also review environmental performance during the previous year, including any impacts that arose due to climate change (such as flooding, heat waves, wildfires etc) and the mitigation and improvement measures that were taken. The purpose is to ensure the Site is:

- Continually improving;
- Minimising the risk of pollution and climate change incidents and preventing any significant impacts to sensitive receptors, including detriment to local amenity;
- Operated in accordance with the latest regulatory guidance;
- Meeting environmental objectives independent of the permit.

2.1.4 Senior management will ensure the findings of the audit are conveyed to appropriate staff and any additional training that may be required will be provided to relevant personnel, to ensure the Site is minimising any potential adverse impacts from climate change.

3 IDENTIFICATION OF POTENTIAL IMPACTS

3.1.1 The Site is located in the Eastern Valleys Catchment, which comprises an area of 491.3 km^2 from the southern border of the Brecon Beacons to the Severn Estuary. It includes the River Rhymney, the River Sirhowy and the River Ebbw, which all run from north to south. The Nant yr Aber flows into the River Rhymney, which discharges into the Severn Estuary[1].

3.1.2 The following Government guidance (www.gov.uk) guidance (updated 17 May 2023) has been used to identify all the potential climate impacts at the Site:

- Non-hazardous and inert waste treatment: examples for your adapting to climate change risk assessment
- Hazardous waste and treatment: examples for your adapting to climate change risk assessment
- Metals recycling: examples for your adapting to climate change risk assessment.

3.1.3 The likelihood and severity of each climate impact is scored to provide the risk rating for each climate impact (Risk = Likelihood x Severity). Where the risk rating for a climate impact is greater than 5, mitigation measures are required to reduce the impact to an acceptable level. The residual likelihood and severity of the climate impact is then re-rated after mitigation to demonstrate the residual risk is at an acceptable level.

3.1.4 The guidance sets out the scoring criteria for severity and likelihood of impact etc and is reproduced in Table 1 below.

[1] Eastern Valleys Catchment Flood Management Plan Final Plan, Environment Agency Wales, March 2009

Table 1 - Risk Score Calculation Methodology

	Severe Impact = 4	Medium Impact = 3	Mild Impact = 2	Minor Impact = 1
Highly likely = 4	16	12	8	4
Likely = 3	12	9	6	3
Low Likelihood = 2	8	6	4	2
Unlikely = 1	4	3	2	1

3.1.5 Risk categories are:

- 12 to 16 = high
- 8 to 9 = moderate to high
- 4 to 6 = moderate to low
- 1 to 3 = low

3.1.6 Guidance 'Climate change: risk assessment and adaptation planning in your management system' states that operators should allow for a 4°C rise by 2100 and a 2°C rise by 2050. However, Government guidance 'Adapting to climate change: industry sector examples for your risk assessment' states that summer temperatures may be around 7°C higher compared to current average summer temperatures and winter temperatures may be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present. This Climate Change Risk Assessment considers the potential 'worst case scenario impacts' identified in the guidance.

4 RISK ASSESSMENT

4.1.1 The Climate Change Risk Assessment is shown in Table 2 below.

Table 2: Climate Change Risk Assessment

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100.	Potential for increased waste reactions or fires involving heat sensitive or combustible waste.	2	4	8	The Site will receive spent, disused or returned fire extinguishers, which contain inherently non-combustible media, with no risk of incompatible reactions. Small quantities of associated packaging wastes such as cardboard, plastic, wood fragments (e.g. from broken pallets), paper and metal will also be received. Cardboard and plastic wrapping will be separately baled and transferred off-site, typically each working day, to a local recycling facility. Due to the relatively small size of the bales they will be transported by van or car. Other packaging wastes will be stored in a sealed and lidded skip. The Site will operate a first in, first out policy to ensure a rapid turnover of wastes, which will be stored for no longer than 5 working days prior to their removal to an authorised facility off-site. This will ensure that heat build-up is avoided, by minimising the waste storage time and the potential for internal heat generation. Emptied fire extinguisher cannisters will be dismantled and separated into metal, brass and plastic components for dedicated storage prior to off-site removal to authorised recycling facilities. Strict waste pre-acceptance and acceptance procedures will be used to ensure only permitted wastes are received and processed at the Site. Any non-permitted wastes inadvertently received at the facility will be either returned immediately to the producer or quarantined for priority removal off-site to an authorised facility.	1	4	4

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).					The Site will be equipped with a comprehensive CCTV system to provide coverage of all the Site. The CCTV cameras include motion detection. A Fire Prevention and Mitigation Plan has been prepared for the Site.			
	Potential for fire if the temperature exceeds the heat rating of components in electrical equipment or components are subjected to intense and direct sunlight.	2	4	8	Waste storage and processing will take place inside a fully enclosed building, which provides shading from direct sunlight. The only waste stored on the external yard will be associated packaging waste, which will be stored in a sealed and lidded skip. The lid will be kept closed other than when site operatives are loading packaging materials inside. All site plant and equipment will be subject to regular inspection and a detailed maintenance programme, as specified by the supplier. Electrical equipment will be subject to inspection and maintenance by suitably qualified electricians.	1	4	4
	Potential increase in high temperature expansion and stress of plant, pipework and fittings.	2	3	6	All site plant and equipment will be subject to regular inspection and a detailed maintenance programme, as specified by the supplier.	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).	Potential increased dust emissions from processing areas and site surfaces.	2	3	6	The Operator will ensure efficient and regular housekeeping measures are used to maintain the Site in a tidy condition and to minimise any risks of dust. Site cleaning procedures include sweeping areas used to store and process wastes, including the corners, to ensure all materials are removed and potentially dusty residues do not remain in-situ. The Site will be swept during the course of the working day to ensure the facility remains clean and tidy. A hose will be used to damp down the site surface, entrance and external yard during potentially dry or dusty conditions. Waste storage and treatment processes will take place inside the building, other than the storage of packaging waste, which will be in a sealed and lidded skip on the external yard. The use of the building and a lidded skip will help to prevent dust emissions. The only inherently dusty material on site is fire extinguisher powder media. The emptying, dismantling and bagging of powder media into 1 tonne 'Big Bags', is undertaken inside and to the rear of the building, i.e. furthest away from the vehicular and pedestrian access doors, which will help to minimise any potential dust emission to the external environment. The powder is drawn by a vacuum pump through a dedicated hose that is connected to the fire extinguisher cylinder head at one end and into a 1,200 litres reception silo. The vacuum pump is fitted with a microporous filter. The vacuum and filter minimise dust emissions from the process.	1	3	3

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk (B x C)	E Mitigation (what will you do to mitigate this risk)	F Likelihood (after mitigation)	G Severity (after mitigation)	H Residual risk (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).					A 1 tonne 'Big-Bag' is attached to the bottom of the silo and is secured by a metal clamp to ensure a tight seal and to minimise any fugitive emission of powder inside the building. Filled and sealed 'Big Bags' are loaded onto curtain sided lorries or other suitable vehicles for transfer off-site to an authorised recycling facility for use as a fertiliser additive. Any inadvertent powder spillages inside the building are cleaned and removed by vacuum cleaner.			
	Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for: - emergency water usage - cooling systems - fire fighting	4	3	12	In the event of warmer, dryer summers or prolonged periods of dry weather due to climate change, the capacity of water availability on site will be increased, so that additional dust suppression, fire suppression etc can be applied. The Site has a ready supply of IBCs and has the potential to store mains water or pure deionised water in IBCs for additional dust and fire suppression. The Site also maintains an industrial vacuum cleaner to clean any inadvertent spillage of fire extinguisher powder in the cannister emptying and decommissioning area and in the vicinity of the powder bagging plant. Potentially, the vacuum cleaner could be used to clean other areas of the building and the external yard, should there be a shortage of water for dust suppression, e.g. due to drought.	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).	Potential increased risk of pests and scavengers from stockpiled waste.	2	3	6	Fire extinguisher media is not attractive to vermin, insects and scavenging birds etc and does not provide a food source to pests. Small quantities of packaging waste associated with the supply or return of fire extinguishers from customers are also received at the facility. These are stored in a sealed and lidded container to ensure the materials are suitably secure. The lid is kept closed at all times, other than when site operatives are loading packaging wastes inside. Pest control measures include: • Refusing any waste loads where pre-acceptance documentation or visual inspection on arrival, shows them to be infested or likely infested with vermin, insects or other pests; • Immediate quarantining of any infected loads that are inadvertently received at the Site, by placing them in a sealed, enclosed and lidded skip or container and arranging for their emergency treatment by a pest control contractor and removal off site to a suitably authorised facility; • Ensuring waste is processed on a first in first out basis and within 2 working days of receipt, although this may increase to 5 working days during busy periods;	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).					• Sweeping and disinfecting waste storage and processing areas (the regular emptying, sweeping and disinfecting of the operational area within the building will ensure a high standard of cleanliness and prevent wastes accumulating over a significant period of time or becoming putrescible). • Ensuring that waste does not accumulate in inaccessible areas such as behind plant and equipment, pipe work or in corner • Daily inspections by trained site operatives and weekly inspections by the Site Manager; • In the event of pest detection, a pest control contractor will be contacted and appointed to monitor pest numbers and to apply rodenticides, insecticides etc, as required.			

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now, e.g. at least a 2°C global mean temperature rise by 2050 and a projected 4°C rise by 2100 (continued).	Potential increased risk of wildfires impacting the site.	2	4	8	All the Site surface comprises engineered pavement and there are no areas of vegetation within the boundary. However, there is a thin belt of vegetation immediately south of the permit boundary and a short distance from the southern extent of the building. In addition, there is an area of ancient woodland circa 45m southwest of the Site. Should vegetation encroach onto the Site it will be cut back, cleared and removed. Daily site inspections include the southern extent of the facility and observations will be made to ensure there is no fire off-site (such as a wildfire) that could encroach onto the premises. In addition, the Site maintains a large supply of fire extinguishers and a water hose that could be used to douse nearby vegetation to minimise any risk of it catching fire and presenting a risk to the Site. Site personnel will be made aware of any potential for wildfires during periods of prolonged dry and hot weather.	1	4	4

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present.	Slightly higher winter maximums could generate regular odour complaints and pest infestations	2	3	6	An Odour Management Plan has been prepared for the Site. This will be subject to a minimum of annual review and updated, as necessary, to incorporate any additional requirements as a result of climate change. Fire extinguisher media is non-odorous and there is no history of odour issues or odour complaints at the Site. Duration of waste storage time will be minimised and materials will be processed on a first in first out basis to ensure rapid turnaround times. Typically waste storage, processing and dispatch times will be within 2 working days, although this may extend to 5 working days during busy periods. The regular emptying and sweeping of waste storage and processing areas will ensure that materials are not allowed to accumulate over an extended period of time, thereby ensuring odorous emissions do not build up or accumulate . Pest control measures are detailed above.	1	3	3
	Lower winter temperatures could result in an increased risk of pipes (or similar) freezing.	2	3	6	All site plant and equipment will be subject to daily inspections during periods of very cold weather (<4^{o}C) and plant will not be operated in the event of frozen pipes etc. Site plant is located inside the building, which provides protection from adverse weather and cold winter temperatures. Detailed maintenance programmes, as specified by the suppliers, will be implemented.	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity).	Potential for increased site surface water and flooding. There is potential for drainage systems to be overwhelmed.	3	3	9	The Site's external yard is located on a combination of low, medium and high flood risk from surface water and small rivers. Despite this, there is no history of flooding at the Site and a Groundsure Report for the facility states that there are no records of historic flooding from rivers, the sea, groundwater and surface water at or within 250m distance. Flood records began in 1946. The building incorporates an engineered concrete base, with no internal drainage outlets. Therefore there are no discharges from waste storage and processing areas inside the building to surface water, groundwater or public sewer. The Operator has installed a lateral drain inside the building, across the entire width of the roller shutter vehicular access door and pedestrian door to prevent any possible escape of inadvertent liquid spillages through the doors to the external environment. The drain falls to a dedicated concrete sump and has been installed so that it is not possible for any liquids to by-pass it, e.g. by draining around the sides. The lateral drain ties into the sides of the sealed building walls, thereby preventing any possibility of liquids by-passing the drain.	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity) (continued).					There is an external lateral drain across the yard that drains run-off water from the building roof. This drain leads to the Nant yr Aber, which in turn flows to the River Rhymney. The Operator has installed a manual shut off valve in the external drain. In the event of any potentially polluting floodwater entering the drain, the shut off valve would be closed to prevent its discharge to the Nant yr Aber. A dedicated loading and unloading area has been constructed on the external yard, which comprises impermeable concrete pavement circa 5m x 4m in area. It is kerbed to 3 sides. The external yard naturally slopes from the public highway on Sir Alfred Owen Way to the front of the building. The unkerbed side of the unloading area is up gradient, i.e. nearest the public highway, which means a proportion of flood water could be retained on site by the kerbed area, helping to prevent site drains being overwhelmed. In addition, any flood water on site could be pumped into IBCs for containment to ensure the Site drainage system remains functional. Pollution socks and/or portable water barriers would be installed across the vehicular and pedestrian access doors to create a physical barrier to prevent the egress of floodwater into the building and associated waste storage and processing areas. The drainage system is subject to weekly visual inspection and is suitably maintained, as required. EMS to be kept up to date with the latest data from NRW on flood risk in the local area.			

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
4. Average winter rainfall may increase by 40% on today's averages.	Potential for increased site surface water and flooding. There is potential for drainage systems and interceptors to be overwhelmed.	3	3	9	Implement mitigation measures as identified above for largest rainfall events.	1	3	3
5. Sea level could be as much as 0.6m higher compared to today's level *.	If a site is located near the coast there is potential increased risk of flooding.	1	4	4	The Site is not located in a coastal area and local rivers and streams etc are not tidal in the vicinity of the Site or the wider town of Caerphilly.	1	4	4
6. Drier summers, potentially up to 40% less rain than now.	Potential increased use and reliance on mains water for dust suppression, cleaning and fire water.	3	3	9	There is the potential to capture water from the Site building roof and store it IBCs for use on site, e.g. for dust and fire suppression.	1	3	3
7. At its peak, the flow in watercourses could be 50% more than now, and at its lowest it could be 80% less than now.	Increased impact from on-site drainage systems where they are connected to watercourses.	3	3	9	A cut off valve has been installed on the external surface water drain, which would enable the control of run-off from the Site during a flood incident, preventing any discharge from the Site to the Nant yr Aber and the wider external environment.	1	3	3
	Increased risk of water course flows being too high to allow discharge and drainage backs up on site.	3	3	9	As above.	1	3	3
8. Storms could see a change in frequency and intensity. The unique combination of increased wind speeds, increased rainfall, and lightning during these events provides the potential for more extreme storm impacts	Potential for high winds to damage buildings and infrastructure and blow waste from the site	2	3	6	The Site incorporates a modern enclosed building, of concrete block and steel portal frame construction, which incorporates a fully sealed impermeable concrete base. Large industrial buildings on the surrounding industrial estate provide an element of wind shielding at the facility. Meteorological conditions will be monitored and in the event of high wind speeds the Operator has the potential to close the Site during the adverse weather conditions.	1	3	3

Potential changing climate variable	**A** **Impact**	**B** **Likelihood**	**C** **Severity**	**D** **Risk** (B x C)	**E** **Mitigation** (what will you do to mitigate this risk)	**F** **Likelihood** (after mitigation)	**G** **Severity** (after mitigation)	**H** **Residual risk** (F x G)
	Potential for high winds to cause problems with stability of above ground storage tanks on jacks.	1	3	3	There are no above ground storage tanks on site. Potentially, IBCs could be used to store water for dust suppression, e.g. in the event of dry and dusty conditions, but these would be stored on the ground and would not exceed a height of just over 1m.	1	3	3
	Potential for lightning strikes to damage buildings and infrastructure	1	4	4	At this stage it is not considered necessary to install lightning conductors on the Site building. However, this will be kept under review at least annually as a result of climate change.	1	4	4

5 CONTROL MEASURES

5.1.1 Control measures are detailed in Column E of the Climate Change Risk Assessment (see above).

5.1.2 In addition to this report, the EMS, Environmental Risk Assessment, Dust Emissions Management Plan, Odour Management Plan and Fire Prevention and Mitigation Plan will be kept under review and updated as climate changes to ensure the control measures remain effective and based on the latest available information.

6 ADAPTATION PLAN

6.1.1 Checkfire Limited recognises that climate change adaptation is becoming increasingly important as risks to disruption will increase significantly. The company therefore supports this Climate Change Risk Assessment as part of the Environmental Permit application and is committed to integrate the recommendations of climate change research into their business plans and operational procedures at the Site.

6.1.2 The company also recognises that the impact of climate change on waste management infrastructure is likely to become increasingly important and that measures must be put in place to ensure that resilience to such events is adequate.

6.1.3 The principle of tackling climate change and supporting the transition to net zero is supported by the company. In addition, the regulation of waste recovery activities as a means of promoting sustainable environmental practices and increasing carbon efficiency is supported throughout the organisation.

6.1.4 The recycling of powder media, packaging wastes (including cardboard and plastic wrapping) brass, scrap metal and plastic at the Site is beneficial. It provides an environmentally beneficial alternative to the use and consumption of raw materials and in doing so results in an overall reduction in emissions to the environment.

6.1.5 The Site has been designed to adapt to climate change by including a suitable allowance in the surface water management system which minimises the risks of the drainage being overwhelmed due to increases in rainfall intensity as a result of climate change.

7 MONITOR, RECORD AND REVIEW ADAPTATION PLAN

7.1.1 Checkfire Limited commits to monitor this Climate Change Risk Assessment, including adaptation plans to:

- Ensure objectives are met:
- Risks from climate change are adequately managed;
- Procedures to combat climate risks remain effective;
- Improvement measures are identified and implemented when required.

7.1.2 The company commits to record:

- Severe weather events and any associated incidents or 'near misses' at the Site, including date, extent of incident, damage or effect to business or the local environment, immediate actions undertaken, proposed future prevention and mitigation measures;
- Any impacts on emissions control and abatement measures at the Site;
- Any downtime to site operations as a result of the weather event or near miss.

7.1.3 This Climate Change Risk Assessment and Adaptation Plan will be reviewed at least annually by senior site management. Review will be undertaken of complaints history, environmental performance, objective and targets and future planned improvements.

7.1.4 The purpose of the review will be to:

- Ensure the objectives of the Adaptation Plan were achieved;
- Identify if enhanced prevention or mitigation measures are required:
- Ensure the Adaptation Plan is continually improving;
- Minimise the risks of incidents or near misses and any associated pollution or detriment to amenity and the local environment as a result of climate change;
- The Climate Change Risk Assessment and Adaptation Plan meets the requirements of the latest regulatory guidance at the time;
- The site remains compliant with the Environmental Permit.