



**APPLICATION FOR AN ENVIRONMENTAL PERMIT
VARIATION UNDER THE ENVIRONMENTAL
PERMITTING (ENGLAND AND WALES) REGULATIONS
2016 (AS AMENDED)**

ENVIRONMENTAL RISK ASSESSMENT



PB LEINER

The Clear Solution

**P B GELATINS U.K. LIMITED,
UNIT A6, SEVERN ROAD, TREFOREST INDUSTRIAL
ESTATE, PONTYPRIDD, CF37 5SQ**

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TABLE OF CONTENTS

1. INTRODUCTION	1
1.1. Overview	1
2. IDENTIFICATION OF RECEPTORS	2
2.1. Site Setting	2
2.2. Potentially Sensitive Ecological Receptors	3
2.3. Potentially Sensitive Human Receptors	5
2.4. Risk of Flooding	6
3. IDENTIFICATION OF THE RISKS	8
3.1. Amenity Risks	8
3.2. Accident Risks	8
4. ASSESSMENT OF THE RISKS	9
4.1. Methodology	9
5. SUMMARY	25
5.1. Results of the Assessment	25
5.2. Conclusion	25

APPENDICES

Appendix I:	Existing Trade Effluent Consent
Appendix II:	Emergency Preparedness and Response Plan

LIST OF TABLES

Table 1: SAC identified within 10km of the proposed Installation Boundary	3
Table 2: Ancient Woodland identified within 2km of the Proposed Installation Boundary	4
Table 3: Potentially Sensitive Human Receptors within 1km of the Installation Boundary	6
Table 4: Amenity Risk Assessment	10
Table 5: Accident Risk Assessment	17

LIST OF FIGURES

Figure 1: Indicative Site Location	2
Figure 2: SAC identified within 10km of the proposed Installation Boundary	3
Figure 3: Ancient Woodland Located within 2km of the Proposed Installation Boundary	4
Figure 4: Potentially Sensitive Human Receptors within 1km of the Installation Boundary	5
Figure 5: Long Term Flood Risk Map – Rivers and the Sea	7
Figure 6: Long Term Flood Risk Map – Surface Water and Small Watercourses	7

ACRONYMS/TERMS USED IN THE TEXT

AW	Ancient Woodland
CCTV	Closed Circuit Television
CDWW	Cymru Dwr Welsh Water
COD	Chemical Oxygen Demand
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
ECL	Environmental Compliance Limited
EQS	Environmental Quality Standards
ERA	Environmental Risk Assessment
FRA	Fire Risk Assessment
LNR	Local Nature Reserve
MAGIC	Multi-Agency Geographic Information for the Countryside
MCERTS	Monitoring Certification Scheme
NGR	National Grid Reference
NMP	Noise Management Plan
NNR	National Nature Reserve
NRW	Natural Resources Wales
OMP	Odour Management Plan
OS	Ordnance Survey
PB Gelatins	PB Gelatins (UK) Limited
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
RAMSAR	Ramsar Convention on Wetlands of International Importance
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
The Installation	PB Gelatins gelatin manufacturing site (Treforest)

1. INTRODUCTION

1.1. Overview

1.1.1. Environmental Compliance Limited (“ECL”) have been commissioned by PB Gelatins (UK) Limited (“PB Gelatins”) to prepare an Environmental Risk Assessment (“ERA”) to form part of the Environmental Permit (“EP”) variation application at their gelatin manufacturing site, hereafter referred to as “the Installation”, located at Unit A6, Severn Road, Treforest Industrial Estate, Pontypridd, CF37 5SQ.

1.1.2. The Permit variation application proposes the following:

- new effluent treatment plant associated with building A21 operations, altered site drainage and one additional point source emission to sewer designated DP2;
- expansion of the Environmental Permit boundary for the inclusion of additional storage areas within Buildings A12 and A13.
- installation of two new biofilters – one to service the ‘A18 New and Millennium Farm’ Buildings and a second unit for the A18 ‘Old Farm’ building;
- incorporation of ten additional point source emissions to air designated EP20-EP29;
- installation of a new bunded 15m³ hydrogen peroxide tank adjacent to A18 ‘Old Farm’ building; and
- installation of a 30m³ salt saturator vessel adjacent to the A21 building.

1.1.3. An ERA has been undertaken in accordance with Natural Resources Wales (“NRW”) ‘How to Comply with your Environmental Permit’ (Version 8, October 2014) and the relevant requirements of the Environment Agency (“EA”) environmental risk assessment online guidance¹ in order to:

- identify potential risks that site operations may present to the environment;
- screen out any insignificant risks;
- assess potentially significant risks in detail; and
- decide on appropriate control measures.

1.1.4. Accordingly, the assessment has addressed the potential risks relating to the operation of the proposed Installation, namely:

- amenity risks (e.g. point source emissions to air and water, fugitive emission to air and water, noise, pests etc): and
- accidents (e.g. fire, loss of containment, loss of power, vandalism).

¹ EA online guidance – ‘Risk assessments for your environmental permit’ Available at <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>, accessed July 2023.

2. IDENTIFICATION OF RECEPTORS

2.1. Site Setting

- 2.1.1. The Installation is located at Unit A6, Severn Road, Treforest Industrial Estate, Pontypridd, Rhondda Cynon Taff, CF37 5SQ. The Installation covers an area of approximately 3.85 hectares comprising several discrete parcels of land within the northern area of Treforest Industrial Estate.
- 2.1.2. The Site Layout Plan (PBGE.01.09-01) details the Environmental Permit Boundary (outlined in green) including the proposed additional area and is provided in Section 3 of this variation application submission.
- 2.1.3. Figure 1 provides the indicative location of the Installation (red outline) within the context of the surrounding environment.

Figure 1: Indicative Site Location

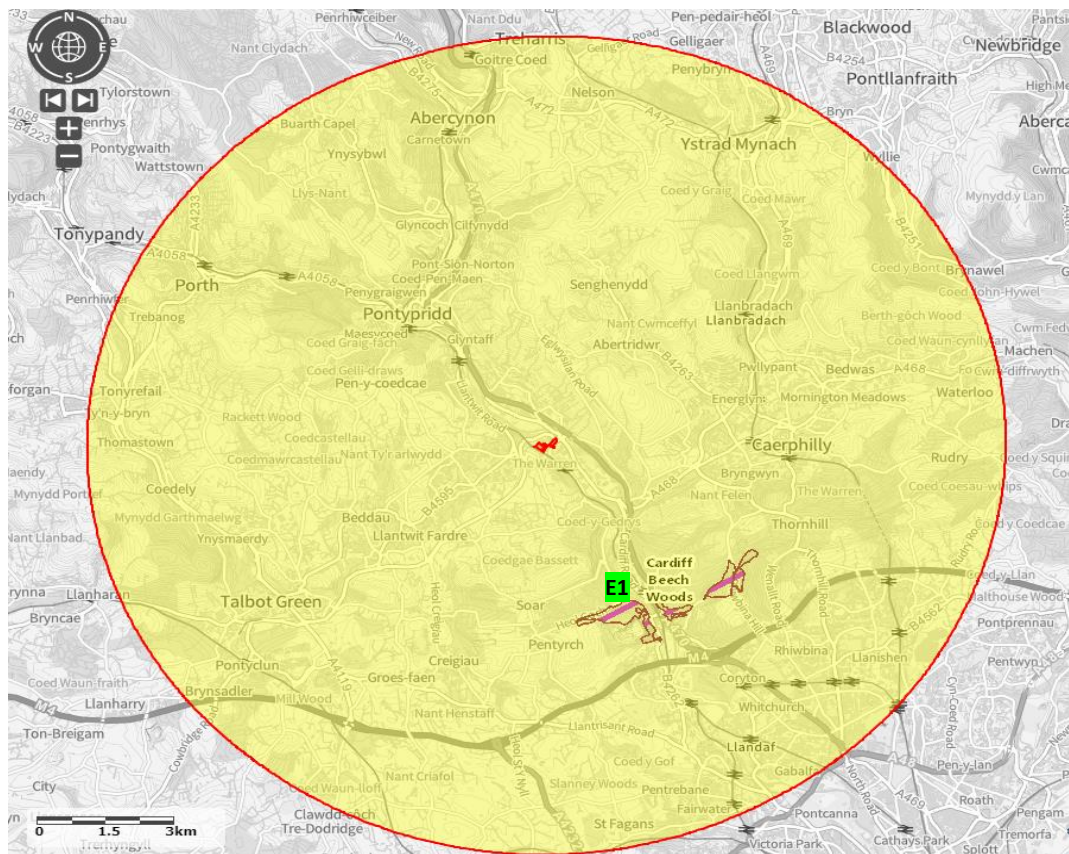


- 2.1.4. The immediate surroundings include industrial units and commercial buildings. The residential area of Tonteg is located approximately 0.6km to the west while the residential areas of Hawthorn and Rhydfelin are located approximately 0.6km and 1km to the north west respectively.
- 2.1.5. The River Taff is located to the north east of the Installation, the boundary of which is approximately 20m away at the closest point.

2.2. Potentially Sensitive Ecological Receptors

- 2.2.1. A review of the area using the Multi-Agency Geographic Information for the Countryside² (“MAGIC”) online tool and the Data Map Wales online tool³ identified that the Installation is not located within 10km of any Ramsar Convention on Wetlands of International Importance (“RAMSAR”) or Special Protection Areas (“SPA”).
- 2.2.2. The Installation is located within 10km of Cardiff Beech Woods, which is designated as a Special Area of Conservation (“SAC”). The location of the SAC relative to the Installation is identified in Figure 2 below.

Figure 2: SAC identified within 10km of the Proposed Installation Boundary



- 2.2.3. The Ordnance Survey (“OS”) National Grid Reference (“NGR”) of the identified ecological receptor together with the direction and distance from the proposed Installation EP boundary is provided in Table 1.

Table 1: SAC identified within 10km of the Proposed Installation Boundary

Ref	Description	Designation	Easting	Northing	Distance from proposed EP boundary (km)	Direction
E1	Cardiff Beech Woods	SAC	311692	182864	4.11	S

² Department for Environment, Food and Rural Affairs (“DEFRA”) MAGIC Online Mapping Tool, available at: <https://magic.defra.gov.uk/magicmap.aspx>, accessed February 2023.

³ Data Map Wales online mapping tool. Available at: <https://datamap.gov.wales/maps/new#/>, accessed July 2023.

- 2.2.4. No Sites of Special Scientific Interest (“SSSI”) or National Nature Reserves (“NNR”) or Local Nature Reserves (“LNR”) were identified within 2km of the proposed Installation boundary.
- 2.2.5. The Data Map Wales online tool was used to identify areas of Ancient Woodland (“AW”) within 1km of the proposed Installation boundary. Areas of AW identified are illustrated in Figure 3 with distances to the proposed Installation Boundary and direction given in Table 2.

Figure 3: Ancient Woodland Located within 1km of the Proposed Installation Boundary

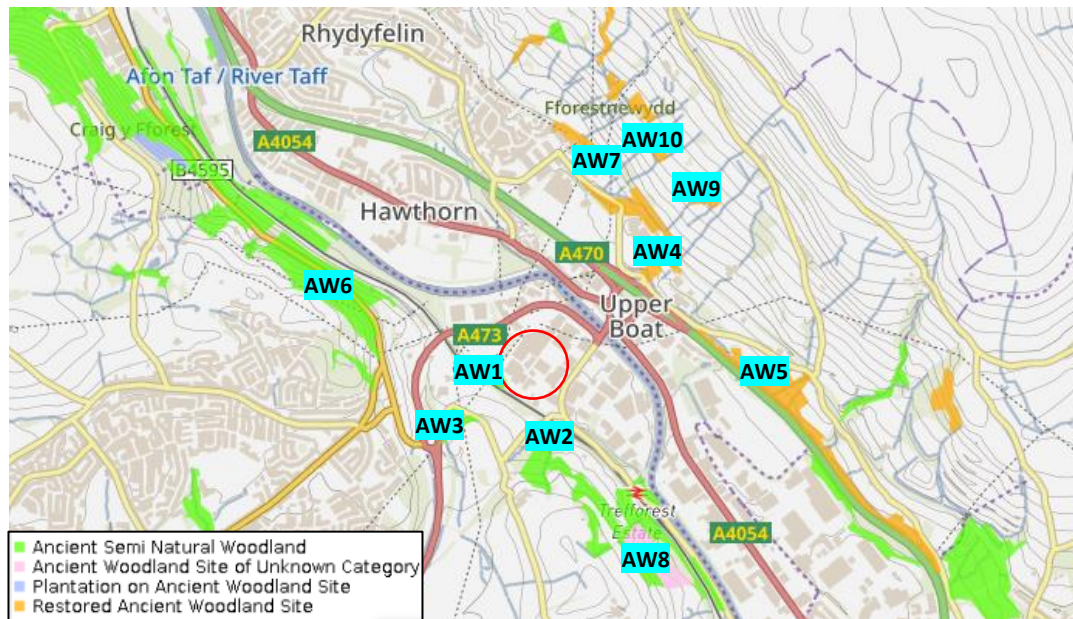


Table 2: Ancient Woodland identified within 1km of the Proposed Installation Boundary

Ref	Designation	Easting	Northing	Distance from proposed EP boundary (km)	Direction
AW1	Ancient Semi Natural Woodland	310032	186791	Within Permit Boundary and Adjacent	S
AW2	Ancient Semi Natural Woodland	310186	186448	0.13	SE
AW3	Ancient Semi Natural Woodland	309867	186599	0.21	S
AW4	Restored Ancient Woodland Site	310767	187298	0.34	NE
AW5	Restored Ancient Woodland Site	310620	187735	0.46	E
AW6	Ancient Semi Natural Woodland	309339	187178	0.55	NW
AW7	Restored Ancient Woodland Site	310420	187878	0.73	N
AW8	Ancient Woodland – Site of Unknown Category	310738	185978	0.74	SE
AW9	Restored Ancient Woodland Site	310976	187621	0.79	N
AW10	Restored Ancient Woodland Site	310769	187861	0.83	N

- 2.2.6. The nearest Scheduled Monument is Tomen y Clawdd which is of Medieval Period located approximately 943m from the EP boundary. It is not anticipated that the Scheduled Monument will be affected by the variation application and therefore, is not considered further in the assessment.
- 2.2.7. In addition to the SACs, SPAs, Ramsar, SSSIs, NNRs, LNRs, LWS, and AW, other potentially sensitive land uses within 1km of the Installation were also considered. A review of the area using the MAGIC tool and Data Map Wales indicated that none of the following sensitive land uses are located within a 1km radius of the Installation:
- Areas of Outstanding Natural Beauty;
 - Groundwater Source Protection Zones;
 - National Parks; and / or
 - Nitrate Vulnerability Zones.

2.3. Potentially Sensitive Human Receptors

- 2.3.1. Potential sensitive human receptors within 1km of the EP boundary have been identified and are displayed in Figure 4 with nearest distances to the proposed Installation Boundary and direction given in Table 3. As the Installation is located in discrete areas, three separate 1km circles are shown in Figure 4 to ensure all human receptors are identified within 1km.

Figure 4: Potentially Sensitive Human Receptors within 1km of the Installation Boundary

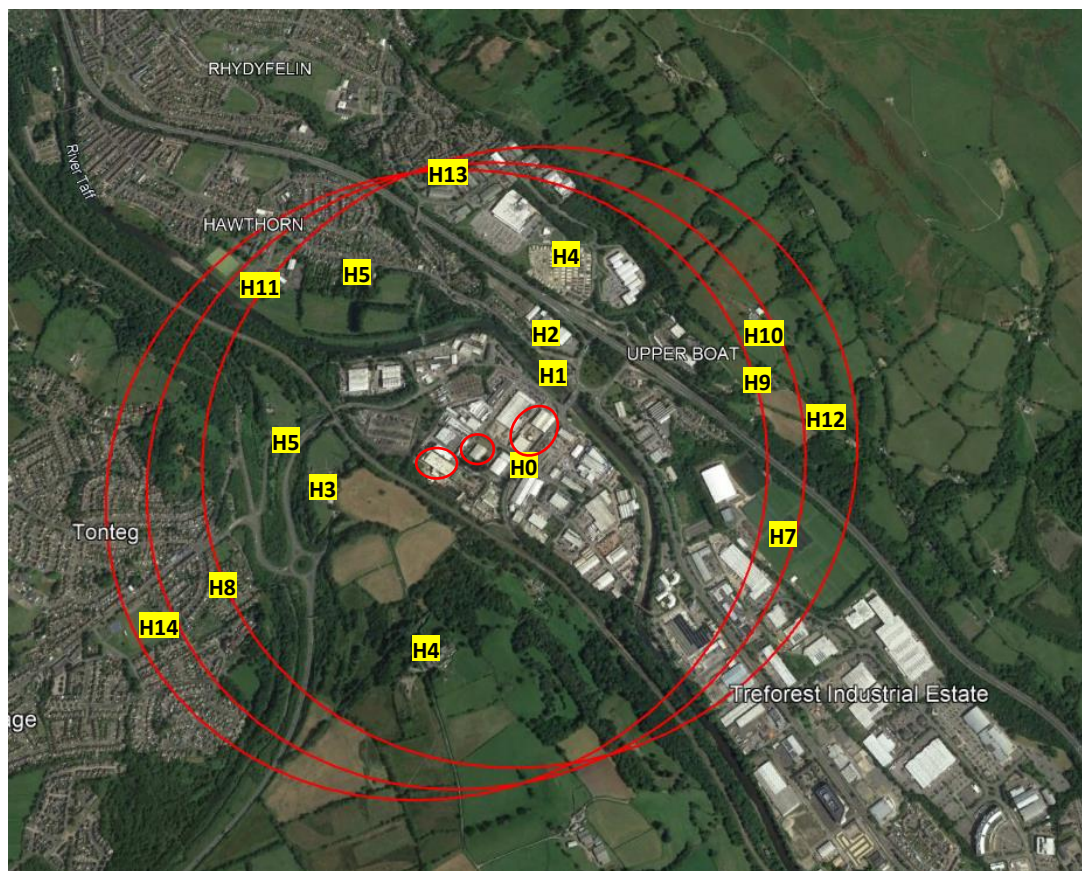


Table 3: Potentially Sensitive Human Receptors within 1km of the Installation Boundary

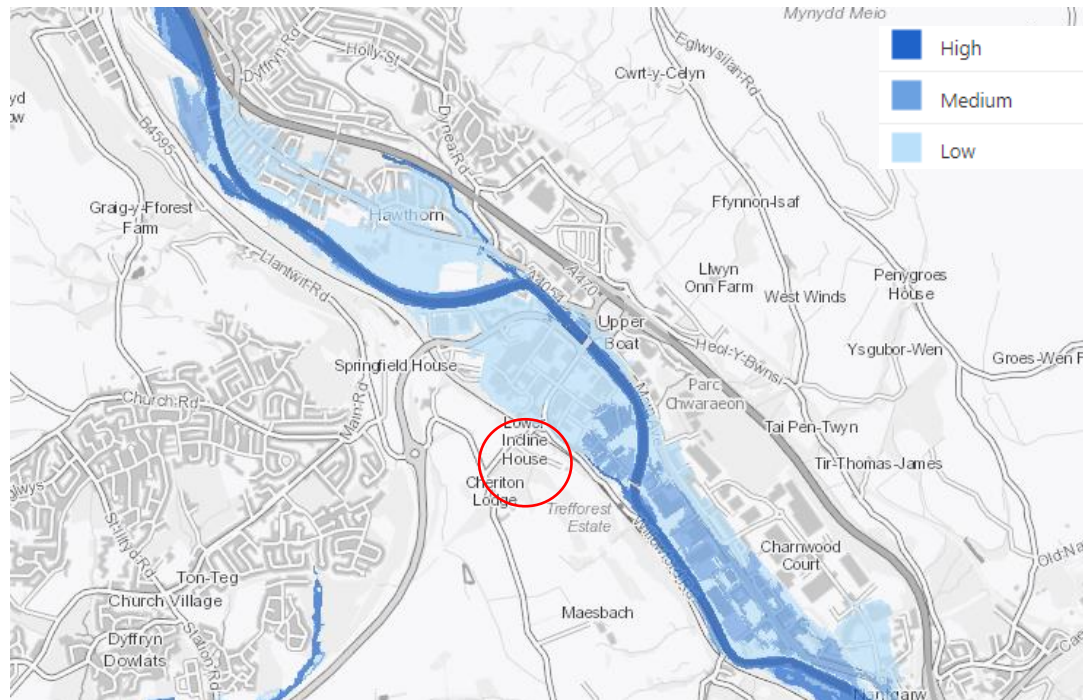
Ref	Name	Receptor Type	Easting	Northing	Distance from proposed EP boundary (km)	Direction
H0	Treforest Industrial Estate	Industry	310219	186755	Adjacent	E
H1	Williams Place	Residential	310484	187102	0.08	N
H2	Upper Boat Business Park	Commercial	310468	187239	0.16	N
H3	Farm – Pound Farm Lane	Farm/Commercial	309784	186746	0.26	W
H4	Gelli-Hirion Industrial Estate	Commercial	310626	187358	0.37	N
H5	Off Tonteg Road	Residential	309652	186899	0.43	NW
H6	University of South Wales Sports Ground	Educational/Recreational	311163	186607	0.46	SE
H7	Nursing Home	Residential	309831	187456	0.56	NW
H8	Tonteg Village	Residential	309562	186522	0.58	W
H9	Off Heol-Y-Bwnsi	Residential	311155	187062	0.65	NE
H10	Farm	Farm/Commercial	311111	187292	0.66	NE
H11	Hawthorn High School and Hawthorn Swimming Pool	Education and Leisure	309550	187365	0.72	NW
H12	Heol-Y-Bwnsi	Residential	311279	186931	0.78	NE
H13	Rhydyfelin	Residential	310051	187968	0.83	N
H14	Tonteg Park	Recreational	309275	186338	0.88	W

2.4. Risk of Flooding

- 2.4.1. The nearest watercourse is the River Taff which is located approximately 0.02km north from the Installation boundary at its nearest point.
- 2.4.2. As shown on the NRW Long Term Flood Risk Map⁴ provided in Figure 5, the Installation is at low risk of flooding from rivers and seas. Low risk is defined as having 0.1% to 1% chance of flooding from rivers or seas annually.

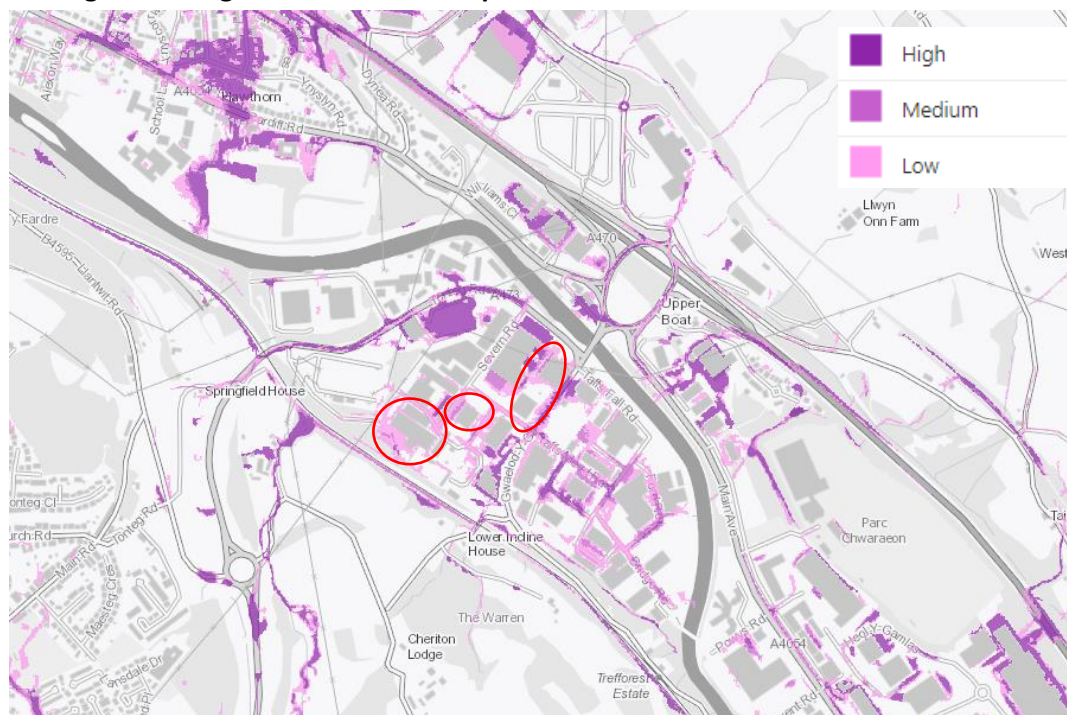
⁴ NRW Long Term Flood Risk maps, available at: <https://naturalresources.wales/flooding/check-your-flood-risk-on-a-map-flood-risk-assessment-wales-map/?lang=en>. Accessed July 2023.

Figure 5: Long Term Flood Risk Map – Rivers and the Sea



- 2.4.3. As demonstrated in Figure 6, due to the layout of the Installation, there are a range of risk levels for flooding from surface water and small watercourses across the Installation. The majority of areas possess a low risk of flooding annually (0.1% - 1%).
- 2.4.4. There are discrete areas on the Permit boundary of the New Farm and Old Farm permitted areas which possess a high risk of flooding from surface water and small watercourses where high risk is defined by NRW as greater than 3.3% chance of flooding each year.

Figure 6: Long Term Flood Risk Map – Surface Water and Small Watercourses



3. IDENTIFICATION OF THE RISKS

3.1. Amenity Risks

3.1.1. Taking into account the nature of the activities that will be undertaken at the Installation, the main amenity risks identified are as follows:

- point source emissions to air;
- fugitive emissions to air;
- point source emissions to sewer;
- fugitive emissions to surface water and sewer;
- noise;
- odour; and
- pests.

3.1.2. As the proposed activities do not involve any point source emissions i.e. process contributions to land or surface water, no assessment has been undertaken. Furthermore, all proposed activities will be undertaken in areas sealed with an impervious barrier to prevent a pollution pathway. Consequently, no further assessment has been undertaken for fugitive emissions to land or groundwater.

3.2. Accident Risks

3.2.1. The main potential accident risks have been identified as:

- fire;
- loss of power / system failure;
- loss of containment of potentially polluting materials;
- flooding;
- pests; and
- vandalism.

4. ASSESSMENT OF THE RISKS

4.1. Methodology

4.1.1. The risk assessments have been undertaken using the following approach for amenity and accident risks:

- identification of hazards associated with the risk that have the potential to cause harm;
- identification of potential receptors i.e. what is the risk (for the purposes of this assessment, typical potential receptors have been identified)?
- pathway, i.e. how can the hazard get to the receptor?
- risk management measures employed to reduce the risk to an acceptable level;
- probability of exposure i.e. how likely is this contact?
- consequence i.e. what is the harm that can be caused? and
- assessment of overall risk.

4.1.2. The assessments for the amenity and accident risks identified above are presented in Tables 4 and 5 respectively.

Table 4: Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Air						
<i>Point Source Emissions to Air</i>						
Point source emissions from the hot water boiler and two gas space heaters	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>Detailed air quality modelling has been undertaken to predict the impacts associated with the proposed emissions from point source emissions from the boiler (designated EP21) and the two space heaters (designated EP22 and EP23).</p> <p>It should be noted that the capacity of the boiler and space heaters are less than 1 megawatt thermal (MWth) and therefore, are not considered Medium Combustion Plants.</p> <p>The study has been conducted to determine the impact of oxides of nitrogen (“NO_x”) and carbon monoxide (“CO”) on human health for receptors within a 2km radius of the Installation. Specified environmental receptors within both a 10km and 2km radius of the discharge stacks have also been assessed.</p> <p>The Air Dispersion Modelling Study (PBGE.01.10/ADM), which is contained in Section 6 of this application, concluded that the emissions arising will not have a detrimental impact on local air quality, human health or the sensitive habitat sites assessed.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Air Pollution	Not significant if risk management measures are strictly adhered to
Point source emissions from odour control systems (the biofilters, sludge and balance tank odour control system exhausts)	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>The emissions to air resulting from the odour control systems have been scrubbed to adsorb potential emissions. Therefore, only abated air, consisting mainly of water vapour, will be released to atmosphere.</p> <p>The biofilter manufacturer guarantees an efficiency of 97- 99% for activated carbon filters and biological filters with cartridge-shaped filter elements filled with adsorbent material.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Air Pollution	Not significant if risk management measures are strictly adhered to

Table 5: Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Air						
<i>Fugitive Emissions to Air</i>						
Fugitive emissions from two new biofilters such as releases of ammonia and hydrogen sulphide gas	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>The purpose of the biofilters is to scrub and adsorb emissions (ammonia, hydrogen sulphide and volatile organic compounds) (including odours) released as part of the gelatin manufacturing process.</p> <p>The selection of the biofilters has been carefully considered by Pb Gelatins and the equipment manufacturers. Preliminary data and concentration measurements were reviewed and the required capacity calculated to ensure the units selected are fit for purpose.</p> <p>The operation of the biofilters will be in accordance with the manufacturer manual and instructions. It is anticipated that the following will be monitored and controlled within reasonable limits to maintain biofilter performance; moisture content, drainage, pH, temperature, nutrient availability and the pressure drop across the biofilter media.</p> <p>A contract will be in place with a specialist biofilter maintenance company who will attend site regularly to ensure the biofilters are achieving optimum odour control performance. The activated carbon will be replaced in accordance with the manufacturer recommendations and inspections and maintenance will be included in the Planned Preventative Maintenance Regime (“PPMR”).</p>	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Air Pollution	Not significant if risk management measures are strictly adhered to

Table 6: Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Air						
<i>Fugitive Emissions to Air</i>						
Fugitive emissions from the liming hot water boiler and two gas space heaters	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>The operation of the boiler and space heaters will be in accordance with the manufacturer manual and instructions.</p> <p>Servicing of the boiler and heaters and maintenance of the extraction systems and discharge points will be undertaken as part of the PPMR which includes all plant and processing equipment. This will ensure optimal performance and to instigate any boiler tuning if deemed necessary.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Air Pollution	Not significant if risk management measures are strictly adhered to
Fugitive emissions from the sludge and balance tank odour control system exhausts	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>The operation of the odour control systems will be in accordance with the manufacturer manual and instructions.</p> <p>Servicing and maintenance of the extraction systems and discharge points is undertaken on a bi-annual basis by a specialist odour control system contractor as part of the PPMR. This will ensure the odour control systems are at optimal performance achieving specification efficiency rates.</p> <p>Sniff testing is undertaken in the proximity of the odour control systems to detect any increase in odour levels which need to be investigated and rectified. This is detailed in the Odour Management Plan (EMS 5.01) submitted as part of this application.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Air Pollution and possible odour nuisance	Not significant if risk management measures are strictly adhered to

Table 4: Amenity Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Water						
<i>Point Source Emissions to Water – Foul Sewer</i>						
Process Effluent	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary).	Via foul drainage system.	<p>The proposed new effluent treatment system and associated drainage upgrades at the Installation have been designed to improve the way in which effluent is managed at the Installation and to reduce the risk of corrosion of drainage pipework and pumps.</p> <p>The proposed new discharge point (DP2) will be subject to a new DCWW Trade Effluent Consent. The existing Trade Effluent Consent for discharge point DP1 is contained in Appendix I. The new Trade Effluent Consent is anticipated to include similar discharge limits as the existing Trade Effluent Consent with the exception of the discharge volume which it is understood will be split across DP1 and DP2.</p> <p>PB Gelatins will monitor emissions to foul sewer in accordance with Environmental Permit and Trade Effluent Consent requirements. Additionally, periodic sampling and analysis of effluent to be discharged from the Installation will be undertaken by DCWW.</p> <p>Substances and parameters anticipated to be within the Trade Effluent Consent include effluent flow, pH, suspended solids, chloride, and chemical oxygen demand ("COD"). Sulphuric acid is not used in the A21 process and therefore, sulphates and sulphides will not be discharged in the effluent.</p> <p>The effluent flow meter is inspected and calibrated annually. Prevention of overflows from tanks is achieved by level meters and gauges. The control system will monitor storage tank levels and regulate flows accordingly.</p>	Low Risk management measures should prevent unauthorised releases from identified receptors	Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	Not significant if risk management measures are strictly adhered to

Table 4: Amenity Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Water						
<i>Fugitive Emissions to Water – Foul Sewer</i>						
Process Effluent	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary).	Via foul drainage system.	<p>There are no relevant substances being discharged with associated environmental quality standards (“EQS”) as listed in the EA’s estuaries and coastal waters priority hazardous substances and specific pollutants and operational EQS spreadsheets, consequently an H1 assessment is not required as part of this application.</p> <p>The use of raw material and the required quantities within the process are strictly controlled ensuring excess chemicals will not be discharged into the effluent. A raw material review is undertaken annually which includes identification and evaluation of any replacement raw materials with improved environmental profiles.</p> <p>PB Gelatins personnel are capable of identifying, holding and preventing the release of any materials should equipment fail and the effluent not being fully treated. There will be excess capacity (40%) to ensure a buffer capacity is available as part of the proposed effluent treatment activities.</p> <p>pH monitoring will be undertaken at three points in the new effluent treatment process ensuring the effluent will be within consented limits (anticipated to be pH 5-11). An autosampler will also be used to monitor process parameters and ensure compliance against Trade Effluent Consent limits. Flow meter and flow controls will be installed.</p> <p>Risk management measures related to the prevention of loss of containment of potentially polluting material are detailed in Table 5 of this ERA.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	<p>Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).</p>	<p>Not significant if risk management measures are strictly adhered to</p>

Table 4: Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Noise						
Noise emissions from site operations	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air. Installation is close enough to potentially sensitive receptors for noise to potentially be audible.	<p>The Installation is located within an industrial setting and is surrounded by industrial and commercial units.</p> <p>It is not anticipated that the proposals detailed in the variation application will lead to any increase in noise at the Installation as none of the proposed activities are significant noise generating in nature.</p> <p>The location of equipment has been selected with due regard to the industrial estate neighbouring units and being the furthest distance away as operationally possible.</p> <p>The selection of low noise equipment and implementation of general operational measures will reduce the potential for any noise and vibration emissions, such as:</p> <ul style="list-style-type: none"> • daily site checks for noise and vibration in external site areas; • limiting of all site vehicles to 10mph and a designated routing system designed to reduce reversing movements; • implementation of a PPMR; • all plant and equipment are turned off when not in use; • all site vehicles and plant are subject to daily checks; • all roller and pedestrian doors are closed when not in use; • all processing activities are undertaken internally within site buildings; and 	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Possible noise nuisance	Not significant if risk management measures are strictly adhered to

Table 4: Amenity Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Noise (Cont.)						
Noise emissions from site operations	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air. Installation is close enough to potentially sensitive receptors for noise to potentially be audible.	<ul style="list-style-type: none"> relevant personnel will be trained in noise management procedures and all personnel will be trained in the prompt reporting of any abnormal noise so it may be rectified. <p>In the event of elevated noise being experienced at the Installation, it will be recorded and an investigation will be undertaken to establish the root cause and implement corrective actions.</p>	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Possible noise nuisance	Not significant if risk management measures are strictly adhered to
Odour						
Odour emissions from site operations	Human population in the surrounding area	Release to Air. Installation is close enough for potential odour emissions to reach potentially sensitive receptors.	<p>The Installation operates under an Odour Management Plan ("OMP") (EMS 5.01). The OMP has been updated to incorporate the proposed activities and is contained in Section 8. This document should be read in conjunction with this ERA.</p> <p>General odour management measures include:</p> <ul style="list-style-type: none"> the regular removal of potentially odorous waste from the Installation; operation and regular inspection of odour control units; hydrogen peroxide dosing of the effluent drainage system to control the overall bacteriological burden of the effluent stream; regular cleaning and inspection of the rotary drum screen and balance tank to prevent the buildup of odorous residues; closing of roller and pedestrian doors when not in use; and daily odour monitoring via sniff testing. 	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Possible odour nuisance	Not significant if risk management measures are strictly adhered to

Table 7: Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Fire						
Fire at the site.	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>A Fire Risk Assessment (“FRA”) is undertaken on a regular basis in accordance with relevant legislation, including the Regulatory Reform (Fire Safety) Order 2005. The purpose of the FRA is to evaluate and to remove/minimise the fire risk by implementation of relevant control measures. The FRA will be reviewed and updated to account for any changes to fire risk as a result of the variation application.</p> <p>Regular inspections and preventative maintenance on all equipment is undertaken to prevent any faults occurring which may lead to a fire. Moreover, designated smoking areas are in place with smoking prohibited in all buildings.</p> <p>The Installation benefits from an automated fire detection system and fire-fighting equipment, such as fire extinguishers, are in strategic positions throughout the Installation and inspected on an annual basis. Nominated personnel are trained in the appropriate use of fire extinguishers.</p> <p>Procedures for the reporting and management of incidents and potential emergency situations including fire have been developed. These procedures are outlined in the Emergency Preparedness and Response Plan (“EPRP”) which forms part of the EMS (see Appendix II).</p> <p>Evacuation drills are undertaken twice annually to ensure all staff are aware of the emergency procedures. Site Incident Commanders and support teams are allocated and trained appropriately in the management of incidents including fire response.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Combustion gases (smoke) and localised nuisance.	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Fire (Cont.)						
Fire at the site (cont.).	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	The Health, Safety and Environment Manager (“HSE”) has overall responsibility for the review and implementation of the Installation emergency procedures and training the Site Incident Commanders and Support teams in their responsibilities.	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Combustion gases (smoke) and localised nuisance.	Not significant if risk management measures are strictly adhered to
Releases of potentially contaminated firewater	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary).	Via site drainage network or via overland flow	Potentially contaminated firewater will be appropriately contained and tested prior to disposal.	Medium	Contamination of controlled waters	Not significant if risk management measures are adhered to
			Depending on the scale of the fire and the volume of firewater to be contained, booms, bunds and drain mats will be used to capture small volumes of firewater.	Risk management measures should prevent any release from reaching the identified receptors	Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	
	Local Watercourse network		The effluent treatment plant capacity can also be utilised to capture greater volumes of firewater. The effluent system will be isolated from the public sewer to prevent discharge and to ensure the potentially contaminated firewater is held prior to sampling and analysis. Discussions will then be held with DCWW to gain agreement to discharge the firewater to public sewer or it will be tankered off site to an appropriately licensed facility or installation for treatment and disposal.			
			Drain mats will be deployed in order to prevent any firewater from entering any surface water drains.			

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Spillage of Potentially Polluting Substances						
Loss of containment during loading, unloading and storage of potentially polluting substances	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary). Local Watercourse network	Via site drainage network or via overland flow.	<p>The Installation benefits from impermeable surfacing to prevent any downward migration of potentially pollution substances entering the ground or groundwater.</p> <p>Department Area Managers are responsible for ensuring competent PB Gelatins personnel supervise deliveries at all times. Storage vessel levels are checked prior to unloading to prevent overfilling.</p> <p>All vessels containing potentially polluting material will be appropriately banded to 110% of the volume of the largest container or 25% of the total volume stored, whichever is greater.</p> <p>External examination of all storage vessels is undertaken by a qualified engineer annually to reduce the likelihood of tank failure or loss of containment. Any remediation action or repairs will be actioned in accordance with the inspection report. If it is established that tank integrity is compromised and cannot be repaired, new tanks will be purchased and installed.</p> <p>Barriers and signage will be in place to prevent the risk of vehicle collision with storage vessels and bunding.</p> <p>Weekly site inspections are undertaken to observe any spillages and to inspect bund integrity. The checks are recorded on a check sheet whilst any remedial action required is recorded electronically as part of the SAP system.</p>	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Contamination of controlled waters Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Spillage of Potentially Polluting Substances (Cont.)						
Loss of containment during loading, unloading and storage of potentially polluting substances (cont).	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary). Local Watercourse network	Via site drainage network or via overland flow.	Loss of containment will be dealt with in accordance with the Installation's robust spill response procedure which is detailed within the Emergency Preparedness and Response Plan ("EPRP"). All relevant employees are suitably trained in the spill response procedure and the rapid deployment of spill kits which are strategically located throughout the Installation. Spill kit inventory is checked during the site inspections and contents replaced in line with manufacturer instructions.	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Contamination of controlled waters Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	Not significant if risk management measures are strictly adhered to
Loss of Containment						
Loss of containment of effluent prior to on-site effluent treatment	Local watercourse network, ground or groundwater	Via site drainage network, percolation through ground or via overland flow.	The effluent from A21 processing will be directed and captured within a new subsurface stainless steel tank of 30m ³ capacity. It will be appropriately banded to ensure that any loss of containment is captured and will not enter the ground or groundwater. The pumping chamber will benefit from two radar level sensors. The proposed settling/balancing tank of approximately 400m ³ capacity will also be purchased new and be appropriately banded (111.75% capacity) as part of the effluent system improvement project.	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors.	Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Loss of Power						
Major system failure of proposed effluent treatment activities	DCWW Cardiff East wastewater treatment plant and subsequently controlled waters (Severn Estuary).	Via site drainage network	<p>Competent PB Gelatins personnel are present on site at all times during processing activities at the Installation.</p> <p>The process equipment benefits from alarms and controls which enable any malfunctions to be identified immediately. Emergency stop buttons can also additionally halt the process including the effluent treatment equipment immediately in the event of serious failure or faults occurring. PB Gelatins personnel are capable of identifying, holding and preventing the release of any materials should equipment fail.</p> <p>The documented planned preventative maintenance regime will detail the required maintenance and inspection of all proposed process equipment to ensure good working order to reduce the risk of a complete system failure.</p> <p>In the event of a major system failure, all affected operations will cease. The Engineering Manager will co-ordinate an investigation to identify and rectify the problem with all actions documented. Faults will be addressed, and repairs undertaken where necessary using specialist contractors.</p> <p>Competent personnel will check all areas prior to the recommencement of operations.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Contamination of DCWW Cardiff East wastewater treatment plant and subsequent contamination of controlled waters (Severn Estuary).	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Pests						
Attraction and infestation of pests from proposed operation	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Via air (birds / flies) or via land (vermin)	<p>It is not considered that the changes proposed as part of this variation will lead to any additional risk in the attraction of pests to the Installation.</p> <p>Due to strict hygiene standards required for the manufacture of gelatine for human consumption, the Installation is kept clean with a regular cleaning and inspections programme undertaken. Infrastructure will be kept clear and be subject to housekeeping inspections and procedures. All equipment will be selected and surfacing kept clear to ensure easy cleaning where necessary.</p> <p>The proposed additional storage areas in Buildings A12 and A13 will house 'work in progress' material/intermediate product prior to blending, as well as storage of finished product prior to dispatch from the Installation. Both warehouse buildings are sealed with no access to the site drainage system.</p> <p>Screening will be undertaken as part of the effluent treatment proposals. Solids will be captured in a roll on roll off skip and sent for disposal at an appropriately licensed facility or installation. It is anticipated that the screened material will be removed off-site every week. Once the extraction residue system is fully operational, the quantity of ossein waste will greatly reduce and the removal frequency will be evaluated whilst ensuring no pests are not attracted.</p>	Low Risk management measures should prevent unauthorised releases from reaching the identified receptors	Possible adverse health effects and nuisance	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Pests						
Attraction and infestation of pests from proposed operation (Cont.)	Ecological and human sensitive receptors in surrounding area (see Section 2.2 and 2.3 of this ERA).	Via air (birds / flies) or via land (vermin)	<p>PB Gelatins employ an external pest control management contractor to implement and monitor a pest control programme at the Installation which includes monthly visits and follow up reports of any findings. The proposed activities and additional areas will be included in the programme.</p> <p>All relevant employees are also trained to understand the signs of pest activity and the need to report any evidence of pests or pest activity to a designated manager.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Possible adverse health effects and nuisance	Not significant if risk management measures are strictly adhered to
Flooding						
Flooding at the site – loss of raw material, product and potentially polluting substances	DCWW effluent treatment plant and subsequently controlled waters.	Via foul drainage system or overland flow	<p>All potentially polluting material is stored in impermeable floodproof containers and secured/anchored to the ground.</p> <p>River levels are monitored on a regular basis using the NRW web page for the Upper Boat monitoring station. Weather and weather warnings are monitored on a regular basis via the Met Office Website. PB Gelatins have also signed up to the NRW flood warning alerts.</p> <p>In the event that recorded river levels are 3.5m or above, actions will be taken at the PB Gelatins Installation to prevent flooding. This includes the deployment of flood defences.</p> <p>The incident will be managed in accordance with the procedures detailed in the Emergency Preparedness and Response Plan until operations can safely recommence.</p>	<p>Low - Moderate</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Contamination of DCWW effluent treatment plant and subsequent contamination of controlled waters.	Not significant if risk management measures are strictly adhered to

Table 5: Accident Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Vandalism						
Any of the above	Any of the above	Any of the above	<p>The Installation is secured by perimeter fencing and lockable entrances with entry by passcode only.</p> <p>A remote closed circuit television (“CCTV”) monitoring system surveys all areas of the Installation which can be viewed by certain members of staff such as the Plant Manager.</p> <p>Key members of staff (e.g. Senior Management) are also on call to attend the Installation out of normal working hours of required. The Installation is not unattended at any time.</p> <p>Staff are also encouraged to report unidentified or unknown visitors.</p>	<p>Low</p> <p>Risk management measures should prevent unauthorised releases from reaching the identified receptors</p>	Any of the above	Not significant if risk management measures are strictly adhered to

5. SUMMARY

5.1. Results of the Assessment

- 5.1.1. The results of both the amenity and accident risk assessments (Tables 4 and 5) indicate that none of the risks relating to the proposed variation will be significant if the Installation is operated and managed in accordance with the risk management measures detailed and the Installation's EMS.
- 5.1.2. An assessment of the impact of emissions from the proposed point source emissions to air has been undertaken. The full assessment may be found in PBGE.01.09/ADM which is contained in Section 6 of this variation application.
- 5.1.3. The existing OMP (EMS 5.1) has been updated to incorporate the proposed activities and details the control measures to be implemented to ensure that odour continues to be effectively managed at the Installation. The OMP is contained in Section 8 of the variation application.

5.2. Conclusion

- 5.2.1. The risks in terms of accident and amenity risk can be considered not significant providing all risk management measures are implemented and strictly adhered to.

APPENDIX I EXISTING TRADE EFFLUENT CONSENT

Company

P B Gelatins (UK) Ltd
Factory A21 & A18
Treforest Ind Estate
Pontypridd
CF37 5SU

Consent No.

TE 372

Receiving Works

Cardiff East

Council Area

Rhondda Cynon Taff

Sample Point

300035

Nature of Discharge

Gelatin Manufacturer

Date Consent Issued

March 5th 1990

Date Direction 1 Issued

February 15th 2002

Date Direction 2 Issued

February 28th 2013

Status

Active

Current Consent Conditions**Maximum Permissible Value****pH**

Between 5 and 11

Flow Max

3000 m³/day

Flow Rate

150 m³/hour

Total Suspended Solids

2000 mg/l

Settled COD

8000 mg/l

Sulphide Total

1 mg/l

Sulphate (as SO₄)

1800 mg/l as SO₄

Chloride

1500 mg/l

APPENDIX II

EMERGENCY PREPAREDNESS AND RESPONSE PLAN

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	1 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		
Hazards		PPE	
N/A		N/A	

1	PURPOSE	<p>This Emergency Preparedness & Response Plan (EPRP) has been developed to minimise hazards / injury to human health and the environment from any unplanned or uncontrolled events. The actions described in this plan shall be implemented immediately whenever an event could threaten human health or the environment.</p> <p>This Emergency Preparedness and Response Plan (EPRP) has been developed for use at PB Leiner only.</p> <p>The EPRP dictates the actions that should be followed in the event of a number of different potential emergency situations that could arise at the facility.</p>
2	REFERRED DOCUMENTS	<p>Crisis and Business Continuity</p> <p>Appendix 1 Site plan</p> <p>Appendix 2 Emergency control check sheet</p> <p>Appendix 3 Contact list</p> <p>Appendix 4 Drainage system</p> <p>Appendix 5 Chemical Storage Location</p> <p>Appendix 6 Emergency equipment maps</p> <p>Appendix 7 Bomb check sheet</p> <p>Appendix 8 Letter for person refusing to attend hospital.</p> <p>Appendix 9 Emergency Muster and Response</p> <p>Appendix 10 Fire Assembly Point</p>
3	DEFINITIONS	<p>SS – Shift Supervisor</p> <p>Gold Commander – Site Manager/ Operations Manager/Shift Supervisor</p> <p>Silver Command – Operations Manager/Production Manager/Shift Supervisor/Charge Hand</p> <p>CH – Charge Hand</p> <p>SHE – Health Safety and Environmental Manager</p>
4	RESPONSIBILITIES	<p>The Site Manager must ensure that all personnel engaged in this procedure are suitably trained and competent in carrying out the task.</p> <p>Personnel should be talked through the procedure contents.</p>
5	DRILLS AND EXCERSISES	<p>The site fire alarm is tested weekly on a Tuesday at 10:00am.</p> <p>An unannounced fire drill is carried out twice per year on different shifts</p> <p>A site emergency drill is carried out once per year.</p>
6	EQUIPMENT	<p>Minimum PPE (Personal Protective Equipment) for Emergency Situations</p> <p>The PPE requirements for a specific situation will be dictated by the Gold Commander after liaising with Site Management and Emergency Services. Unless otherwise determined, all situations and materials must be deemed as hazardous and as such the following PPE must be worn <i>as a minimum</i> when approaching or dealing with the situation. This is available from stores or A6 PPE store room:</p>

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	2 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

		<p>Safety boots Safety glasses Bump cap or hard hat Chemical resistant gloves</p> <p>NB</p> <p>If Peracetic Full face RPE Full Chemical suit if identified by Gold Commander</p>
7	GENERAL ARRANGEMENTS	<p>PB Leiner is located at Unit 6 (offices) within the Treforest Industrial Estate to the south east of Pontypridd at approximate grid reference ST 10190 86860.</p> <p>The industrial estate sits in the Rhondda Valley and runs in parallel to the River Taff and the A470. The closest residential area is Church Village, located approximately 0.7km to the west.</p> <p>The process of extraction is firstly liming the ossein (Unit A18) to raise the alkalinity and condition the collagen for ultimate extraction. Hydrogen peroxide is added to control microbiological growth and sodium hypochlorite to sanitise the process vessels. This process takes approximately 50 to 65 days. Waste Materials from the Liming Plant Include lime sludge, ossein solids and wastewater.</p> <p>Following liming, the ossein is freed completely of lime by washing in rotary drum washers and conewashers. Phosphoric acid is added to this process to reduce the pH to between 5.5 and 6.5. Once complete the ossein is transported to the extraction vessels (Unit 21) for extraction.</p> <p>Extraction of gelatin involves a semi continuous process of dissolving it in hot water while the ossein passes through a series of tanks, transferred to storage tanks and filtered.</p> <p>Final extraction residue is boiled by direct steam injection into the extraction tank in order to dissolve any remaining gelatin from the residue. This is recovered via a clarification process and by dissolved air flotation of the resultant solution.</p> <p>Gelatin is passed through an ion exchange process before being sent to evaporators. After this process the concentrated gelatin is pumped to the sterilisation, chilling and drying part of the process.</p> <p>At the end of the dryer, the gelatin is ground by a rotary milling machine. It is pneumatically transported to a bagging plant where the gelatin batches are filled into 800kg bags. Automatic Permit Number EPR/DP3030ZC Page iii 12/04/2018</p> <p>sampling is performed during this stage and samples are also transferred to the quality control laboratory in Unit 6 and analysed for its physico-chemical and bacteriological properties.</p> <p>Unit 6 is the main office block.</p> <p>Approximately 2,200m³ per day of water is abstracted from the River Taff (Abstraction Licence 21/57/25/0063) via a pump house 0.7km to the North of the main plant. This water is pumped underground to the water works plant at the installation.</p> <p>Approximately 2,400m³ per day of effluent is generated by the processes. Effluent is collected by a series of drains in all areas of the plant. For effluent produced in A18, it is transferred to an effluent pumping station adjacent to the Liming Process. From the collection sump the effluent is screened to a balance tank. Particles of ossein waste screened out at this stage are collected in a skip and are disposed of via a rendering plant.</p> <p>The effluent collected in the balance tank is pumped to a Dissolved Air Flotation (DAF) unit where the pH is neutralised by the addition of sulphuric acid. An organic flocculent and a polymer coagulant are added to bind <0.7mm particles in the effluent together which are separated from the aqueous phase as a sludge by</p>

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	3 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

addition of air bubbles to the DAF unit. This sludge is pumped into a collection tank which is periodically emptied and transported by tanker for disposal to agriculture or waste disposal plant. The aqueous phase from the DAF unit overflows into the effluent drain which runs into the Dŵr Cymru Welsh Water (DCWW) sewer (DCWW consent number TE 372) which transports the effluent to the DCWW Cardiff Bay Treatment Plant before discharge into the environment.

Effluent from A21 will be held within a bunded subsurface stainless-steel tank. The effluent will then be pumped by two stainless steel pumps from the collection to the screening system (two 0.5mm screening system) with the addition of cold water. The pH will be monitored prior to screening, in addition to flow. The solids generated via the screening process will be collected within a roll on roll off stainless-steel skip under a roofed structure and the liquid phase will be pumped (duty and standby pumps per screen) to a new bunded settling tank for balancing (natural pH correction).

A new bunded settling/balancing tank will be installed under a permanent roof structure. The effluent will be held in the new bunded balancing tank, which has an effluent storage retention time of approximately 8 hours, and benefits from an aeration system, before being pumped using above ground centrifugal pumps through an in-line static mixer for pH correction. The pumps and static mixer will be located within a kerbed concrete area connected to the pumping station.

The effluent balance tank will benefit from an acid wet scrubber to remove any potential odours.

Effluent pH will be corrected with acid and alkaline dosing. Once the effluent within the static mixer is of the correct pH for discharge to foul sewer (pH 5-11) in accordance with the Trade Effluent Consent (Consent Number TBC), the effluent will be discharged via the proposed new discharge point DP2.

PB Leiner operate a PMS system, which is an electronic system that SAP, has a record and test schedule against all critical equipment that could lead to any sort of environmental incident.

Appendix 1 Site plan

- 8 CONTROLS AND RESPONSIBILITIES
- The degree of co-ordination and organisation needed to control and recover from an emergency will vary depending upon the scale and nature of any incident. The effectiveness of the emergency procedure is largely dependent upon the people who have designated roles to play in its execution. Key responsibilities within the procedure are:
- Gold Commander**
- The primary & deputy personnel who assume this role are defined in appendix 2
- The Gold Commander shall have absolute control of the company action in an emergency. There shall be no conflict of interests or responsibility at such times and the Gold Commander's decision shall be final. The responsibilities of the Gold Commander include:**

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	4 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Taking overall control of the incident from the on-site Incident Control Room.

Having direct liaison with the Site Silver Commander.

Ensuring that key staff and resources are mobilized, photograph the area to freeze evidence.

Where a major emergency exists, notifying the emergency services. Liaising with key representatives of external agencies i.e. senior fire officer, police officer, Environment Agency (NRW) and other. Providing advice on any possible effects offsite.

Ensuring internal communication with head office and SHE team.

Reviewing, assessing and communicating developments during the course of the incident.

Directing the evacuation of the offices and plant or the shutdown of plant and operations as appropriate, in consultation with the emergency services and on-site incident team

Ensuring that all staff are accounted for.

Ensuring that any casualties receive immediate medical attention. Relatives should be informed as soon as possible, liaising with emergency services where appropriate.

Maintaining a log to record all events, with contacts, times and actions undertaken to mitigate any effects.

Ensuring traffic movements onto site are prevented.

Providing welfare needs for personnel.

Giving consideration to the preservation of any evidence.

Initiating spill control clean up and remediation work.

Assisting in post incident investigation.

Site Silver Commander

The primary & deputy personnel who assume this role are defined in appendix 2.

In the event that a team of personnel are required to provide assistance to deal with the emergency then a Site Silver Commander shall be appointed to take control at the scene of an incident. The responsibilities shall include the following:

Assisting the Gold Commander in carrying out his/her duties.

Carrying out an initial assessment of the incident, to determine if it is or may become a major accident and, if so initiate the emergency plan.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	5 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Informing and briefing the acting Gold Commander

Ensuring that the site alarms are sounded and directing the shutdown of appropriate plant.

Directing the evacuation of other areas of the plant to the designated assembly areas, if not already carried out by the GC.

Summoning and co-ordinating key personnel, i.e., maintenance, first aiders etc. Contact list Appendix 3

Controlling the emergency operations until the arrival of the emergency services. Liaise with and assist the fire services (primarily the senior fire officer) as requested.

Keeping the Gold Commander informed of all significant developments.

Support Teams

Depending upon the nature of the emergency, either the Gold Commander or the Site Silver Commander may assemble one or more support teams to assist in carrying out tasks. The persons involved in these will be informed at the time.

Emergency Equipment Holdings

Emergency equipment is held on site for a variety of situations. This is both personal protective equipment (e.g. overalls, safety wear), 'grab' (non-issued) protective equipment (e.g. escape sets), and fixed equipment (emergency showers, eyewash stations, fire extinguishers). These are all detailed on Appendix 6

Incident Control Room

The on-site Incident Control Room (ICR), will be established in a safe and accessible location subject to the type and location of the incident, with due consideration given to the wind direction.

Normally the Incident Control room will be: A6 conference room

If the normal Incident Control room is unsuitable, the alternative Incident Control room will be: Farm cabin

The ICR will be equipped with adequate means of internal and external communications, copy of the site plans, an 'incident log book', and a copy of this Emergency Preparedness & Response Plan (EPRP).

Escape Routes and Assembly Points

The assembly point and escape routes are shown in Appendix 6

The normal assembly point is opposite A6 at A13 for the Farm this will be the effluent plant

The Gold Commander will give consideration to wind direction and assign an alternative assembly point if required.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	6 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Alternative assembly points are: In front of A13 roller shutter doors

Escape Routes: personnel should follow the shortest and safest route to the assembly point, as indicated by fire exit signs.

Site Emergency Alarm

The site is fitted with 5 fire alarm. There are numerous call points located in A6, A21, A12, A13 and the Farm buildings. There are smoke detectors in the main administration block. Within the Blending building there is 5 IR detector which is linked to the main fire system

The fire alarm panel is in A21 process building at the roller shutter door. A6 main entrance door and the Blender by the clocking station ground floor.

The fire alarm is tested every Tuesday at 10:00 – 11.00 am. For the different locations.

There is an Ammonia alarm in the Ammonia compressor room , situated on the wall adjacent to the glycol tank. This is tested every time the site goes through a major shutdown, it is checked every 3 months by Crowcon.

There is an Crowcon alarms system situated in A21 process building at the roller shutter door. This detects a number of different chemicals SO₂, HCL and Chlorine. This is checked every 3 months by Crowcon

The site has a number of Safety Showers as listed in Appendix 6

The Safety Showers are tested weekly.

Chemical Storage

The site has a number of chemical storage facilities, these are shown in appendix 5 along with a list of chemicals and quantities.

The site has replaced all tanks at the end of their life expectancy. Most tanks have been built with their own bunded system with is integral.

The pipework and pumps feeding the process from the tanks also have been updated with a Chemiguard system.

All site tanks, bunds, chemiguard units and tersely containment is inspected weekly and recorded on the site SAP system.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	7 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

9 General Emergency Response

In any emergency the initial response will be the same.

The person discovering the emergency situation shall inform the Shift Supervisor or Operations Manager immediately via:

Use of phones
Use of site radios
Verbally informing personnel

The Shift Supervisor or Operations Manager establishes the facts of the situation, and the level of severity.

If the Emergency Services are not required and there is an injured person, the attending First Aider shall make the decision on when to send a person to hospital.

If the injured person has any of the following injuries then they must attend hospital;

Any vapour/gas inhalation.
Any bang/bump to the head.
If the person was unconscious at any point.
Any cut that could require stitches.
Any suspected fracture.

This list is not exclusive, at any point hospital is considered then the injured person must attend hospital.

If the injured person does not want to attend hospital then appendix 7 is to be signed by the injured person stating that they have been instructed to attend hospital but they are refusing.

If possible, the injured person is to be taken to hospital then a designated taxi service is to be used.

Depending upon the nature of the emergency the Shift Supervisor (SS), Operations Manager (OM) will follow the scenarios set out below:

Fire or Explosion on the Plant or Farm

SS/OM will sound the fire alarm for the whole site.

If the emergency is on the Farm, and the Farm operators must alert the Shift Supervisor and Operations Manager immediately.

All site personnel will evacuate to the assembly point. At the side of A13 Appendix 10

Management/Supervisors in each area: offices, plant, and Farm are responsible (where safe to do so) for ensuring that the area is completely evacuated.
Personnel should, where possible and safe, switch off electrical equipment and close doors and windows. This includes the plant roller shutter doors.
Where possible personnel should ensure they take their mobile phones and site radios with them.

The SS briefs the Gold Commander of the details of the emergency. The GC assumes responsibility. The OM/SS assumes the role of Site Silver Commander.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	8 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

If deemed necessary the SC/GC/SS contacts the emergency services, dialling 999 from an internal phone, giving the following details:

Site location

Nature of the emergency (including any casualties, possible risks etc)

The response required

The GC designates a person to carry out a roll call.

The GC briefs the Senior Officer of the Fire Service on their arrival, giving details of:

Location of the fire/explosion

Any casualties or missing persons

Actions taken so far

Possible risks from materials on site

The GC will decide if there is risk to adjacent properties, and inform.

As soon as possible the GC (or designated scribe) records all details of the unfolding emergency in the Incident Log Book, Dicta phone.

Only when the Emergency Services have declared the situation as safe will the GC allow personnel to re-enter the site.

Near Miss card must be completed after the event

For actions after the event see section 11

Fire in A6 administration Offices

The person discovering a fire sounds the fire alarm by breaking the glass on the nearest call point. This will sound the alarm in the office block zone only.

On hearing the alarm contacts the SS, informing him of the alarm in the offices, and instructing him to sound the alarms in the Plant and Farm zones if required.

All site personnel will evacuate to the assembly point. At the side of A13 Appendix 10

Management in each area: offices, offices plant, Farm are responsible (where safe to do so) for ensuring that the area is completely evacuated.

Personnel should, where possible and safe, switch off electrical equipment and close doors and windows. This includes the plant roller shutter doors.

Where possible personnel should ensure they take their mobile phones and site radios with them.

The SS briefs the Gold Commander and the Silver Commander of the details of the emergency. The GC assumes responsibility. The OM/SS assumes the role of Site Silver Commander.

Out of normal working hours the Shift Supervisor will become Gold Commander and the Charge Hand will take on the role of the Silver Commander.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	9 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

If deemed necessary the GC contacts the emergency services, dialling 999 from an internal phone/mobile, giving the following details:

Site location

Nature of the emergency (including any casualties, possible risks etc)

The response required

The GC designates a person to carry out a roll call.

The GC briefs the Senior Officer of the Fire Service on their arrival, giving details of:

Location of the fire/explosion

Any casualties or missing persons

Actions taken so far

Possible risks from materials on site

The GC will decide if there is risk to adjacent properties, and inform.

As soon as possible the GC (or designated scribe) records all details of the unfolding emergency in the Incident Log Book Dicta phone.

Only when the Emergency Services have declared the situation as safe will the GC allow personnel to re-enter the site.

Near Miss card must be completed after the event

For actions after the event see section 11

Serious Spillage

On discovering a spillage, the SS is informed immediately.

The Shift Supervisor establishes the facts of the situation, and the level of severity and informs the Site Manager.

If deemed serious enough (e.g. presence or potential to fume or react etc) the SS or OM sounds the alarm for that zone.

All site personnel from that zone will evacuate to the assembly point. Side of A13 Appendix 10

Management in the zone are responsible (where safe to do so) for ensuring that the area is completely evacuated.

Personnel should, where possible and safe, switch off electrical equipment and close doors and windows. This includes the plant roller shutter doors.

Where possible personnel should ensure they take their mobile phones and site radios with them.

The SS briefs the Gold Commander of the details of the emergency. The GC assumes responsibility. The OS/OM assumes the role of Site Silver Commander.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	10 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

The GC informs personnel in the other zones of the incident and decides if the alarms should be sounded in those zones to commence evacuation.

Emergency response continues

If deemed necessary the GC contacts the emergency services, dialling 999 from an internal phone/mobile, giving the following details:

Site location

Nature of the emergency (including any casualties, possible risks etc)

The response required

The GC designates a person to carry out a roll call.

Additional considerations are:

If material has spilled on a public road then the police may need informing.

If material has spilled into a public sewer then Welsh Water should be informed.

If material has spilled into a water course then Natural Resources Wales (NRW) should be informed - **0300 065 3000** (24 hours a day) and complete the Schedule 5 Notification and submit to the Site Inspector as soon as possible.

Unless otherwise determined the material must be treated as hazardous and as such the minimum personal protective equipment detailed in the equipment section must be worn when approaching or dealing with the material. This is available in the equipment stores.

If it is safe to do so take action to shut off or slow the leak as appropriate without risking health and safety. This shall be achieved by shutting the valve if open on an IBC, tanker or fixed above ground tank.

All processes and movements in the affected area are to be stopped. Cordon off the spillage area using the red / white warning barrier tape available in the equipment stores to limit access and inform others of the danger.

Members of the Incident team under the control of the Site Silver Commander will be responsible for dealing with the spillage. Those personnel not required for the handling or cleaning up of the spill must remain outside of the affected area.

In the event that a tanker arrives on site and is leaking, then if safe to do so the vehicle should be moved into a contained area immediately. In the event that it is not possible to move the tanker to a contained area then attempts shall be made to contain the spill using mobile containers, pumps and booms. Once the contents of the tanker have been transferred to alternative storage location then the transport company will be informed of the fault with the vehicle in order to enable repairs to be made.

When dealing with the spillage note that:

Material must not be allowed to enter the surface water drainage system using the spill kits strategically placed around the Installation.

If the spill involves a flammable material be alert to ignition sources and eliminate wherever possible.

Near Miss card must be completed after the event

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	11 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

For actions after the event see section 11

Serious Injury

In the event of a serious injury the Ambulance Service is contacted on any telephone and dialling 999. When connected speak slowly and clearly stating:

“This is PB Leiner A6 Seven Road Pontypridd.

Provide details of the incident and known injuries.

Alert the first aider. First aiders’ identities are detailed in Appendix 3

Ensure that the site AED is taken to the location of the injured person/s.

Ensure that the accident area is safe to enter.

NOTE: DO NOT PUT YOURSELF AT RISK, IF IN DOUBT GET OUT.

If it is an electrical injury ensure that the electrical supply is disconnected by isolating the equipment involved, if possible. DO NOT TOUCH the casualty until disconnected from the electrical power.

If the casualty is in immediate danger remove to a safe area – if safe to do so. If the casualty is not in immediate danger do not move him.

Near Miss/Accident book must be completed after the event

For actions after the event see section 11

Toxic Gas Release

If the release is in either the plant or farm, the Shift Supervisor will sound the alarm for the Plant and farm zones to commence evacuation of these areas. Operators are to put on the escape set. Locations is in appendix 6. In this situation the offices would not automatically be evacuated. The Operations Manager is to be informed at this point.

If the release is in the office building then the alarm is sounded for that zone alone to commence evacuation.

If the offices are not evacuated, then staff should ensure that the windows and doors are kept shut.

The SS/OM decides if the normal assembly point is appropriate. The decision is made through assessment of the location of the gas release and the wind direction.

If not appropriate, the SS/OM nominates an alternative assembly point.

The SS/OM decides if personnel in the other zones are required to be evacuated, or should remain where they are.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	12 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Personnel in the affected zone will evacuate to the nominated assembly point. This should be done via the shortest available route. Escape sets are available within the operational areas and should be used if required. (Mask storage locations are given in appendix)

Management in the evacuated zone(s) are responsible (where safe to do so) for ensuring that the area is completely evacuated.

Personnel should, where possible and safe, switch off electrical equipment and air conditioning units, and close doors and windows. This includes the plant roller shutter doors.

Where possible personnel should ensure they take their mobile phones and site radios with them.

The SS briefs the Gold Commander of the details of the emergency. The GC assumes responsibility. The OM/SS assumes the role of Site Silver Commander.

If deemed necessary the GC contacts the emergency services, dialling 999 from a phone, giving the following details:

- Site location
- Nature of the emergency (including any casualties, possible risks etc)
- The response required

The GC designates a person to carry out a roll call. In cases where some zones are not evacuated, radios/telephones should be used to determine the whereabouts and health of all persons on site.

The GC will decide if there is risk to adjacent properties, and inform

If the emergency services have been called, the GC briefs the Senior Officer on his arrival, giving details of:

- Nature/location of the release
- Any casualties or missing persons
- Actions taken so far
- Possible risks from materials on site

The GC determines if the crisis communication procedure is required to be activated.

The GC and Site Silver Commander will decide on the course of action to be taken. PB Leiner staff will not normally access affected areas without the emergency services until deemed safe.

Near Miss card must be completed after the event

For actions after the event see section 11

Adverse weather conditions

All weather information must be obtained from the MET office only.

River levels are to be obtained from NRW web page, Upper Boat monitoring station, attention should be given to further up the monitoring stations.

<https://rloi.naturalresources.wales/ViewDetails?station=4219&lang=en>

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	13 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

OUR GUIDELINES FOR POTENTIAL FLOODING:

Less than **3.5m** – Continue operations as normal, frequently monitoring culvert and river level.

3.5m to 4m – Stop extracting and washout votators and evaporator and any other equipment that would set. In downtime check flood defences are in place, barricade further if possible. (Contact site management)

4m and above - Leave site and get to a safe place (In this event please contact the next shift to warn them).

Particular attention must be focused on PB Leiner and the surrounding area.

All 3 categories of weather warning, Yellow, Amber and Red are guidelines that the company will follow.

Yellow Weather Warning

No immediate actions are required for production to take.

Unlikely that staff will have issues attending or leaving site.

Amber Weather Warning

No immediate action is required to stop production, this must be monitored as issues may arise with staff attending or leaving site.

In the event of an Amber Weather Warning the Management Team should meet to discuss the details of the warning and appropriate actions.

These to include but not limited to;

The use of HCE Adventure to taxi staff in and out by (4X4 vehicles)

The setup of the onsite sand bags at critical points

Sending none essential staff home

Gritting is operational by contract company

Sufficient gritting materials are on site and deployed at critical points

Move any equipment/Gel to higher ground.

Red Weather Warning

The company will take immediate action to stop production.

The Management Team must review all actions that are being taken.

If times are given till the Red Weather Warning, the process can continue to run until there is 6 hours until the start of the red weather warning. At this time or if there is already less than 6 hours before the start of the red weather warning the following actions are to be done immediately;

All bone transfer from the Farm to be stopped, any part transferred extractions to be left in cold water in extraction tanks.

Stop adding hot water to extraction tanks, and batch off remaining liquor to weak liquor storage

Cover remaining bone in cold water

Stop flow in to the filter room and wash out filters

Wash out through the de-ionisers

Wash out the evaporators

Wash out the steriliser loop/Votator

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	14 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

	<p>Stop and isolate the drier Leave any liquor not processed in storage Isolate the river intake pump Leave effluent treatment system in operation Secure and safely leave site if possible.</p> <p>Terrorist Threat</p> <p>In the event of a telephone call relating to a terrorist threat, the person receiving the call should take the following actions. See appendix 7 for checklist</p> <p>Record the time of the commencement of the call.</p> <p>Discreetly bring to the attention of another person the fact that a terrorist threat is being received.</p> <p>When the receiver of the call has brought the threat to the attention of another person, this person should immediately contact the PB Leiner Management team and the police and advise them of what is happening.</p> <p>Attempt to prolong the conversation for as long as possible. Try to clarify with the caller the details of the threat. Listed carefully to background noise as this may indicate the location of the caller. Record whether the caller is male or female. Try to assess the nationality of the caller by accent. Try to assess if the caller is sober. Monitor the length of the call. When the call is finished, complete the notes taken during the call and ensure that a copy is passed immediately to your supervisor who will instigate the necessary action.</p>
10 MEDIA CONTACT	<p>In the event of a significant incident, the Crisis Communication procedure is to be used. No statements will be given to the media without authorisation from site management.</p> <p>No person is allowed to post onto any social media platforms. Care and thought must be given to next of kin.</p>
11 AFTER THE EVENT	<p>Without delay the Gold Commander shall notify the Environment Agency (NRW) of any accident, which has caused or may have had the potential to cause pollution.</p> <p>The Gold Commander/SHE Manager shall then submit written confirmation of the notification by completion of the information listed in IN schedule 5 of the site permit which shall be sent to the Environment Agency (NRW) within 24 hours.</p> <p>Clean-up operations should only commence when agreed by the Gold Commander, the Emergency Services (if they attended) and the regulatory bodies (i.e. EA(NRW), HSE). The following aspects for consideration should be taken into account before any clean-up operations commence:</p> <p>Are there any toxic or flammable vapours present in the area? The area should be gas tested prior to allowing access. Are there any toxic or corrosive substances present in the area? The area may need to be pumped out and pipe work drained.</p>

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	15 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Are there any structural or electrical hazards present? These will need to be isolated, or a structure may need to be demolished, shored-up or otherwise secured.

Does evidence need to be preserved for investigations? This may be required by the enforcing authorities, insurers or for internal investigations.

Photographs should be taken.

Ensure that the premises and area are secure from intruders and un-authorised access.

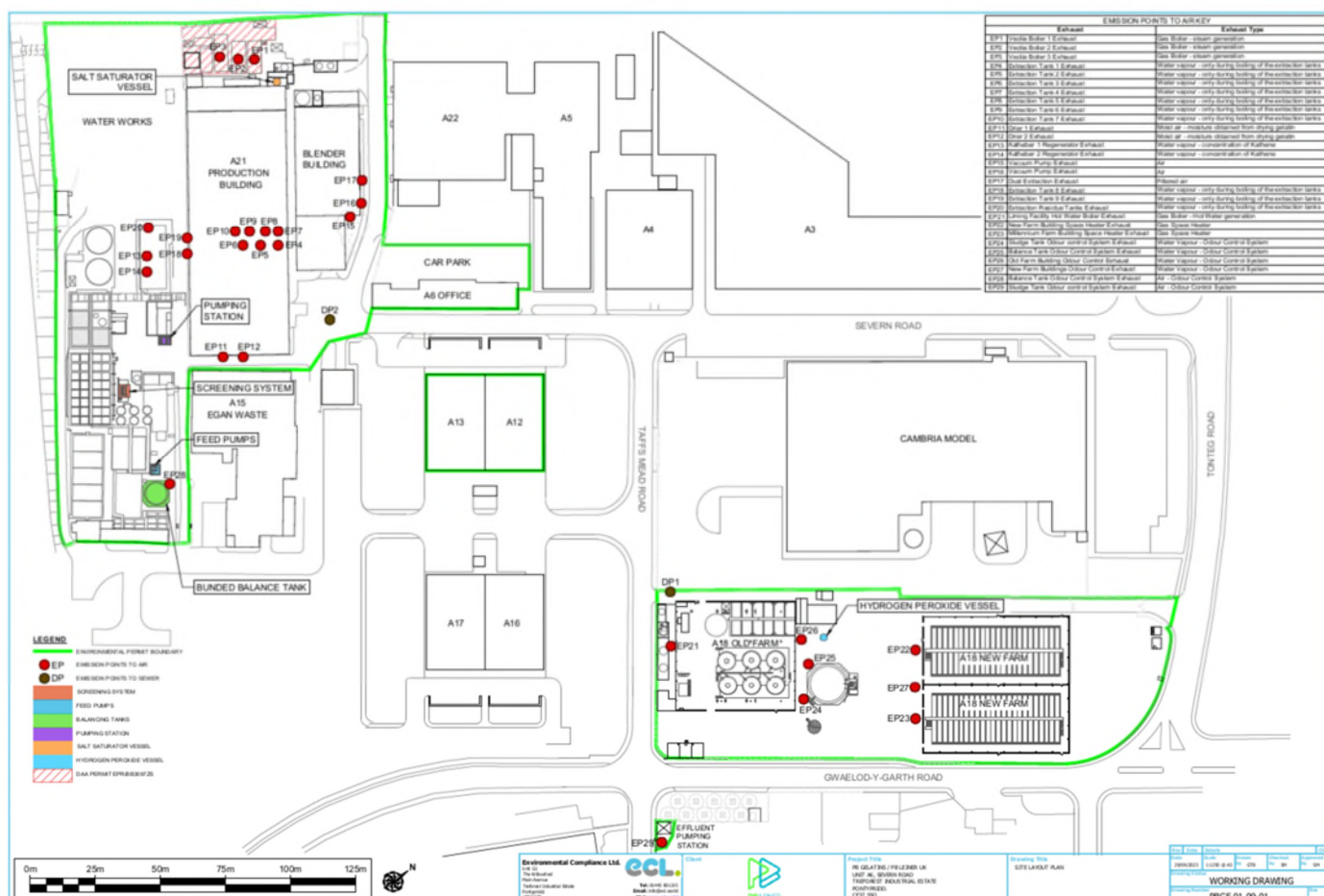
Have staff involved with the cleaning up operation been instructed with respect to any hazards that may be present, and issued with the appropriate PPE?

Does any waste material produced or stored as a result of the incident need to be removed off site?

In the case of injury, an accident book entry must be completed.

1. An internal investigation must be initiated according to procedure TRE_011

APPENDIX 1



PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	16 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

APPENDIX 2

SITE SILVER COMMANDER Silver 1

This role will normally be fulfilled by the Shift Supervisor. A deputy will be nominated by the Gold Commander if necessary.

The principle duties of the Site Silver Commander are as set follows:

DUTIES	COMPLETED Y / N
Conduct an initial assessment of the incident to determine if it is, or may become, a major accident and if so initiate the emergency plan.	
Inform and brief the acting Gold Commander	
Ensure that the site alarms are sounded and direct the shutdown of appropriate plant. Direct the evacuation of other areas of the plant or transfer station to the designated assembly areas.	
Summon and co-ordinate key personnel, i.e. maintenance, first aiders etc.	
Assign an individual with the task of taking a roll call at a muster point you select based on the incident and wind direction.	
Control the emergency operations until the arrival of the emergency services.	
Freeze the scene, to control area and for evidence gathering including photographs to be taken	
Liaise with and assist the fire services (primarily the senior fire officer) as requested.	
Keep the Gold Commander informed of all significant developments.	

GOLD COMMAND Gold 1

This role will normally be fulfilled by the Site Manager. The nominated deputy will be the Shift Supervisor. (The most senior member of the operations team onsite takes this role).

The principle duties of the Gold Commander are as follows

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	17 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

DUTIES	COMPLETED Y / N
Assess the situation – gather information calmly and quickly.	
Dedicate an individual to the role of Site Silver Commander.	
Can the incident be safely controlled with equipment on site? Instigate immediate tackling of the situation if not putting lives at risk.	
Ensure Evacuations and musters are instigated. Relaying to the site Silver Commander wind direction and tell them which muster point or safe refuge to direct people to.	
Go to the Silver Command room. Notify Emergency Services.	
Communicate an action plan to the Site Silver Commander.	
Review, assess and communicate developments regularly. Consider freeze the scene and the taking of photographs for evidence.	
Supply Emergency services with details of the incident.	
Get feedback from Site Silver Commander on Role Call – Is anyone missing?	
Decide on safety of "recovery and search" if anyone is missing.	
Communicate missing status to emergency services.	
Is anyone injured? Organise First Aiders. How and when they get to hospital.	
Review again – Is everyone accounted for? Is the situation escalating? Can shut down procedures be safely initiated? Consider evacuation of entire site.	
Review if any operations on site could lead to an environmental issue and act accordingly. Consideration especially to spills and emission that could effect on or off site personnel.	
Liaise with emergency services, providing details of the site and chemicals in various areas. Use weather station and site maps.	
Consideration of weather conditions if/when evacuation of site. Also neighbouring sites to be kept up to date.	
Give consideration to controlling chemical reactions through treatment tanks.	
Inform the Operations Director.	

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	18 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

APPENDIX 3

Contact list

Role / Responsibility	Name	Internal Tel:	Mobile
Gold Commander Deputy	Plant Director		07503 730468
Site Silver Commander Deputy	Production Manager Shift Supervisor / Charge Hand		07572 875972 07733 365961
Health, Safety and Environmental Manager	SHE		07502 465427
Media Relations Officer			TBC
First Aiders		Site radio / telephones	
G. Lewis S. Richards A. Thomas R. Oram S. Came K. Robson C. Edwards R. Grice D. Potter K. Lucas W. Lewis M. Lewis			

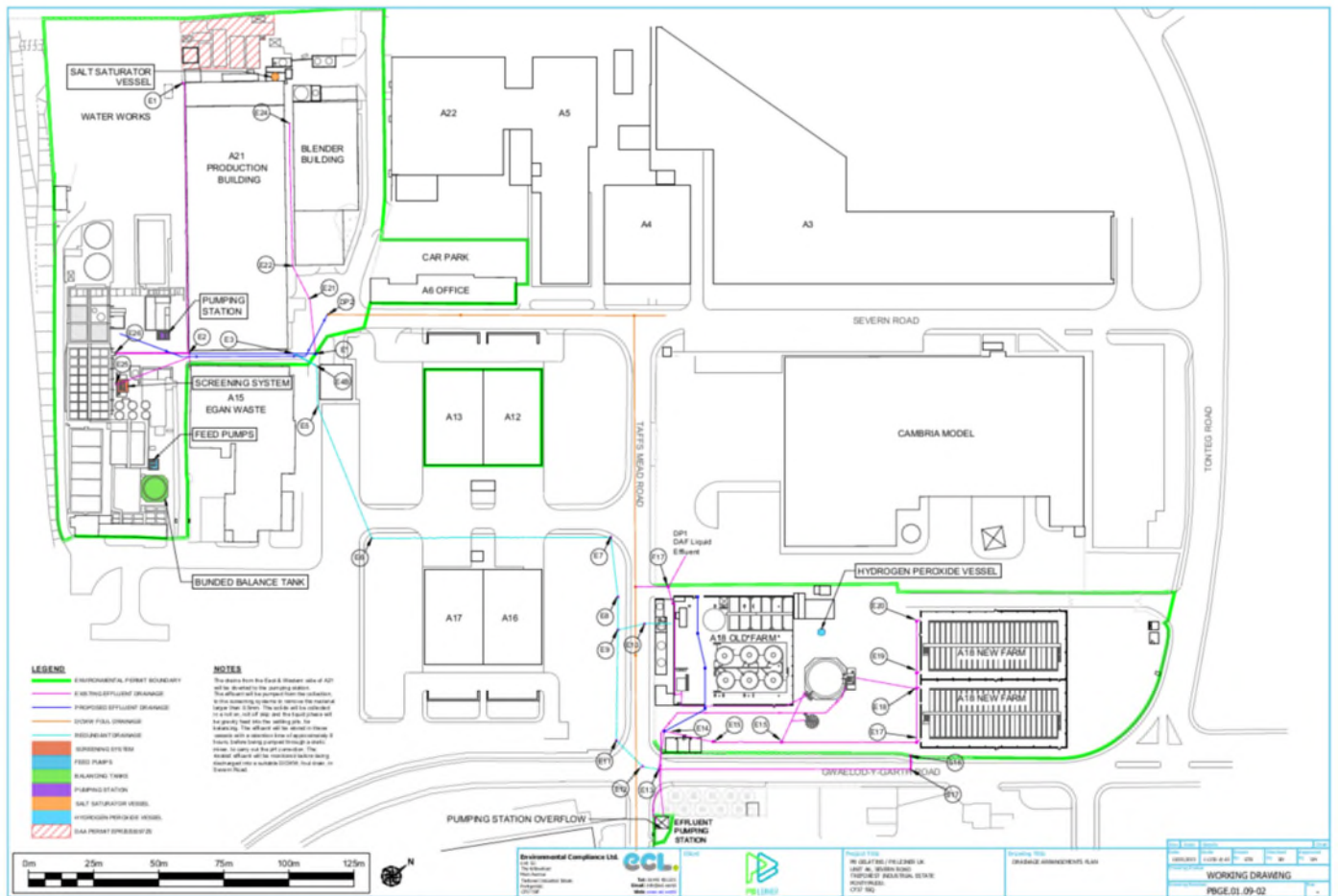
CONTACT	NOTES	TELEPHONE NUMBER
Fire, Ambulance, Police	In emergency	999
NRW	24hr reporting line	0300 065 3000
Electricity	Western Power Distribution	105
Health and Safety Executive (incident reporting)	Reportable incidents should be reported to HSE online	www.hse.gov.uk 0345 300 9923
Welsh Water	24hr emergency line	
Gas Supplier (in event of leak)	National Gas Grid – for leaks	0800 052 0130

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	19 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

0800 111 999

APPENDIX 4 Drainage system

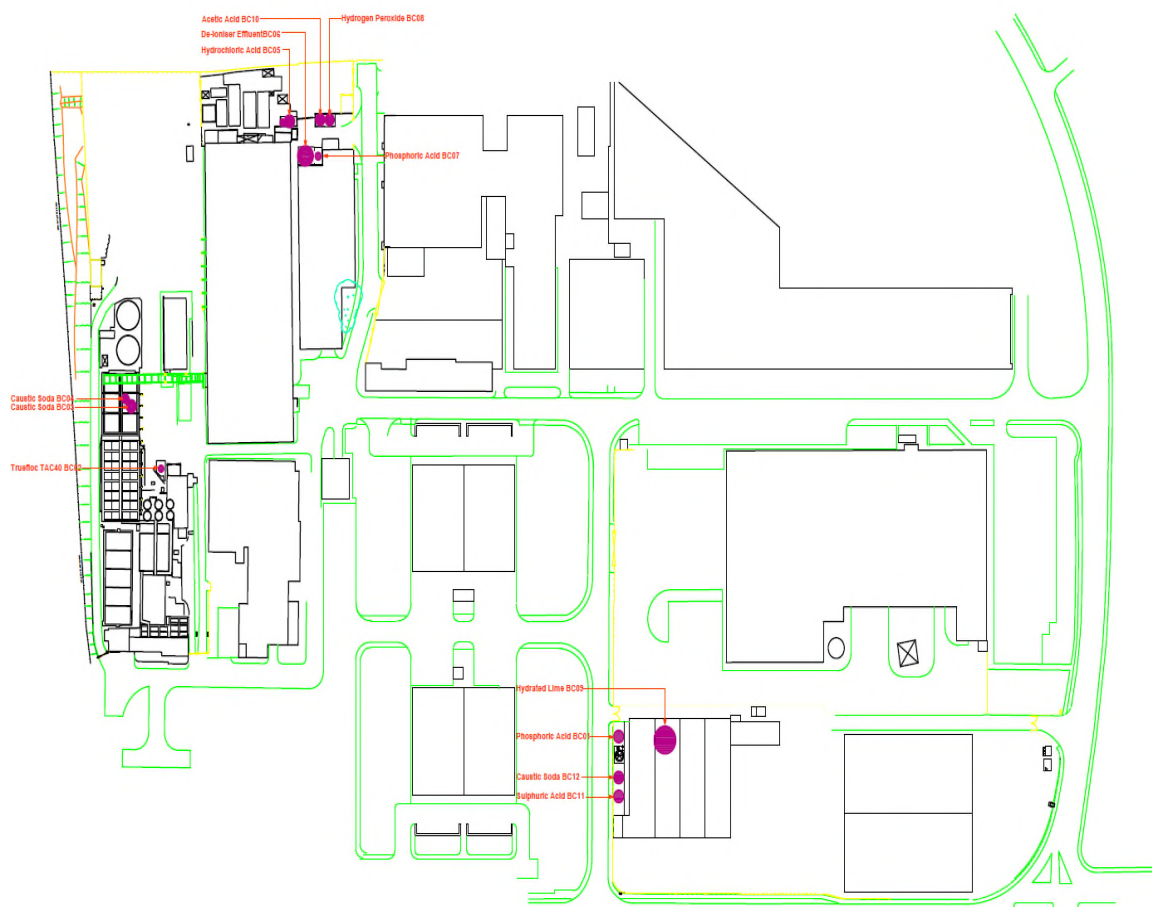


PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	20 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Appendix 5 Chemical Storage – To be Updated

ID No	System	Area	End of Design Life	Tank description	Contents	Material construction	Height	Diameter	Actual Volume	Working volume M³	Filling operation	Level control
BC 09	A18 lime	A18		Lime silo	Hydrated Lime	Concrete	3.35	7.96	166.73	146.82	Tanker	Sight
BC 01	A18 Phosphoric	A18	Dec-35	Bulk Phosphoric Acid	Phosphoric Acid 75%	HDPE	4.36	2.46	20.73	19.11	Tanker	Ultrasonic indicator
BC 11	A18 Sulphuric	A18	Jul-22	Bulk Sulphuric Acid	Sulphuric Acid 77%	HDPE	4.35	2.50	21.36	20.99	Tanker	Ultrasonic indicator
BC 12	A18 Caustic	A18	Feb-37	Bulk Caustic Soda	Caustic Soda 40%	HDPE	4.84	2.60	25.72	22.00	Tanker	Ultrasonic indicator
BC 03	A21 caustic	Water works	Sep-33	Bulk Caustic Soda	Caustic Soda 20%	HDPE	7.96	3.60	81.07	76.35	Tanker	Pressure transmitter
BC 04	A21 caustic	Water works	Oct-35	Bulk Caustic Soda Day Tank	Caustic Soda 20%	HDPE	4.50	1.79	11.26	10.57	Automatic	Ultrasonic indicator
BC 13	A21 Sodium Hypochlorite	Water works	Jan-40	Sodium Hypochlorite day tank	Sodium Hypochlorite 15%	HDPE	1.84	0.78	0.87	0.82	Automatic	Level switch
BC 06	A21 Deioniser effluent	Rear A21	Sep-37	Bulk Acid Effluent storage	Acidic water	HDPE	5.60	3.60	56.96	55.00	Automatic	Sight
BC 05	A21 HCL	Rear A21	Jul-34	Bulk Hydrochloric Acid	Hydrochloric Acid 32%	HDPE	5.40	2.90	35.67	34.75	Tanker	Ultrasonic indicator
BC 08	A21 Hydrogen peroxide	Rear A21	Sep-38	Bulk Hydrogen Peroxide	Hydrogen Peroxide 35%	HDPE	3.80	2.60	20.18	16.46	Tanker	Ultrasonic indicator
BC 10	A21 Acetic Acid	Rear A21	Nov-36	Bulk Acetic Acid	Acetic Acid 80%	HDPE	3.80	2.60	20.18	16.46	Tanker	Ultrasonic indicator
BC 07	A21 Phosphoric	Rear A21	Sep-38	Bulk Phosphoric Acid	Phosphoric Acid 75%	HDPE	3.80	2.60	20.18	16.46	Tanker	Ultrasonic indicator
BC 02	W Works Truefloc TAC40	Water works	Sep-39	Bulk Trufloc TAC40	Truefloc TAC40	HDPE	3.09	2.20	11.76	11.00	Tanker	Ultrasonic indicator



PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	21 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

APPENDIX 6 Emergency equipment maps.

A6 Office Building

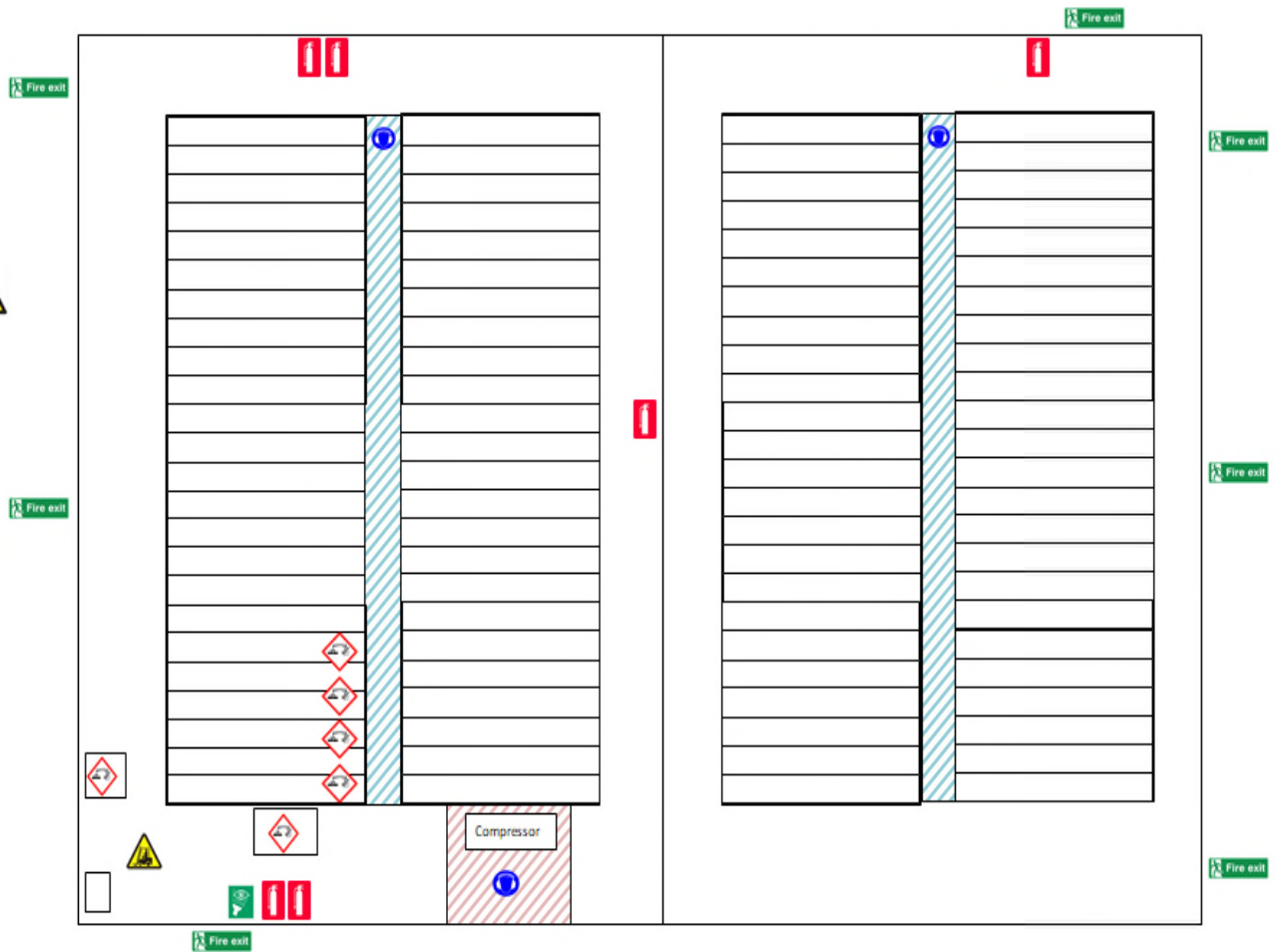
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PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	22 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

New A18 Building Area Hazards Map

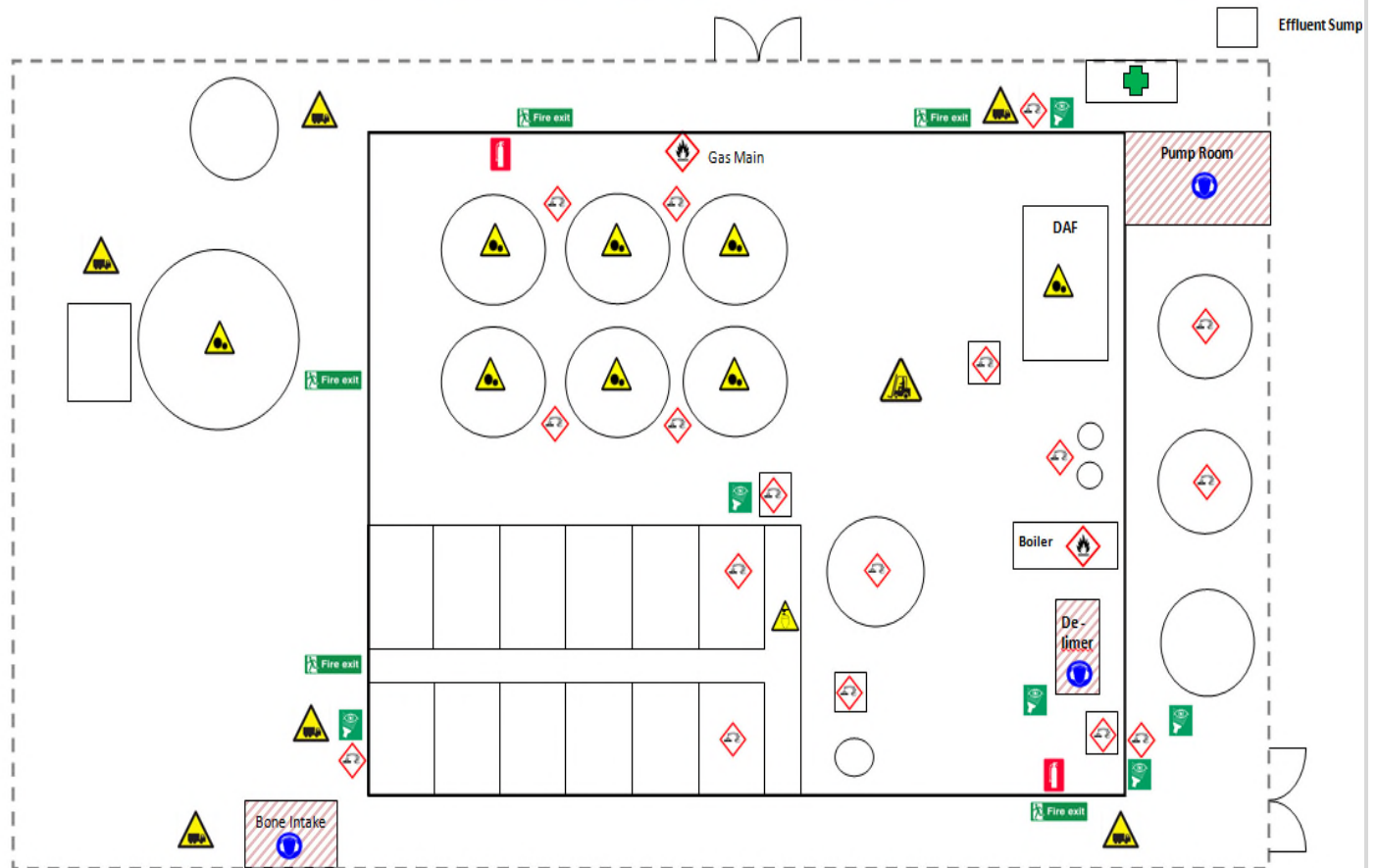


	Hazardous Chemicals		Hearing Protection Zone (when comp is running)		Eye Wash / Safety Shower
	Fork Lift Trucks in Operation		Hearing Protection Zone (when pits are blowing)		Fire Extinguisher
	HGV in Operation				Fire Exit

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	23 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Area Hazards Map – Old A18 Building

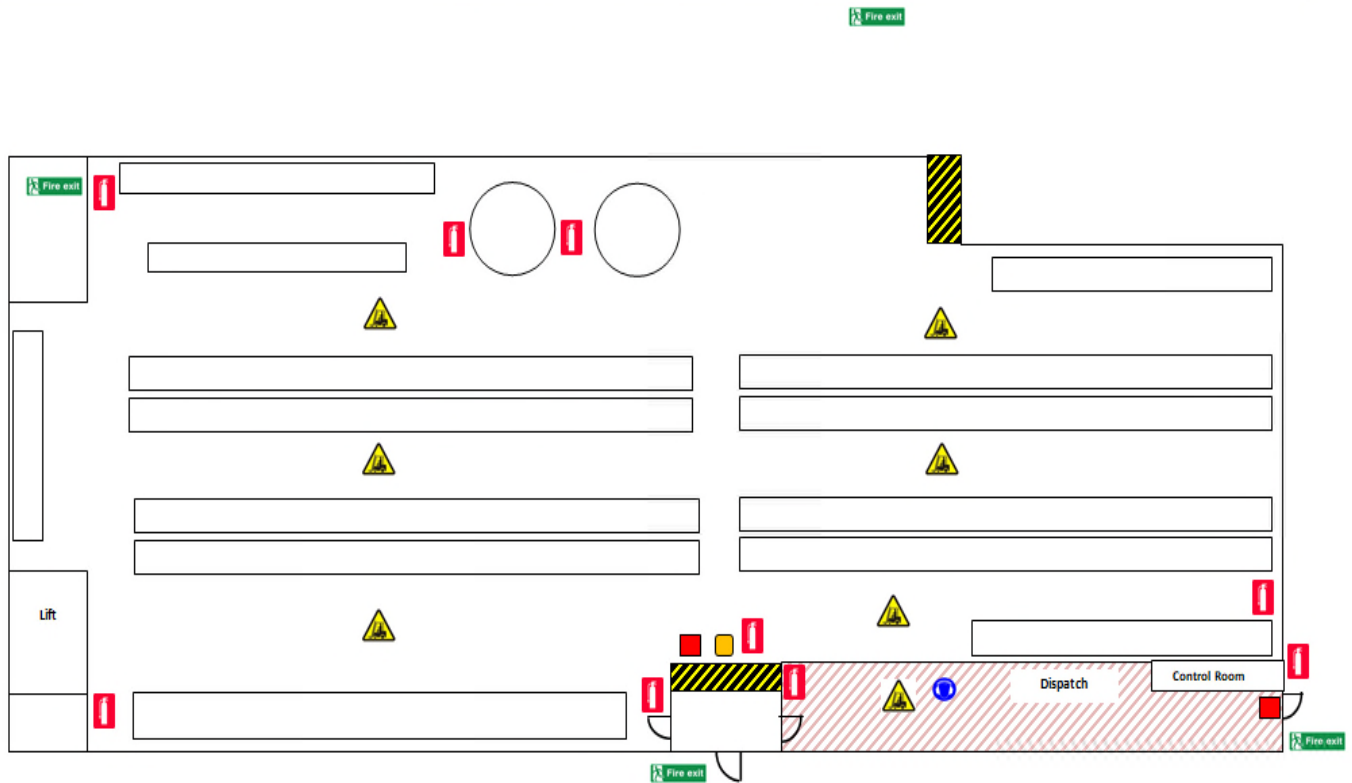


	Hazardous Chemicals		Moving Machinery		Eye Wash / Safety Shower
	Flammable Natural Gas		Fork Lift Trucks in Operation		Fire Extinguisher
	Bump Hazard		HGV in Operation		First Aid
	Hearing Protection Zone				Fire Exit

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	24 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Blender First Floor Area Hazards Map

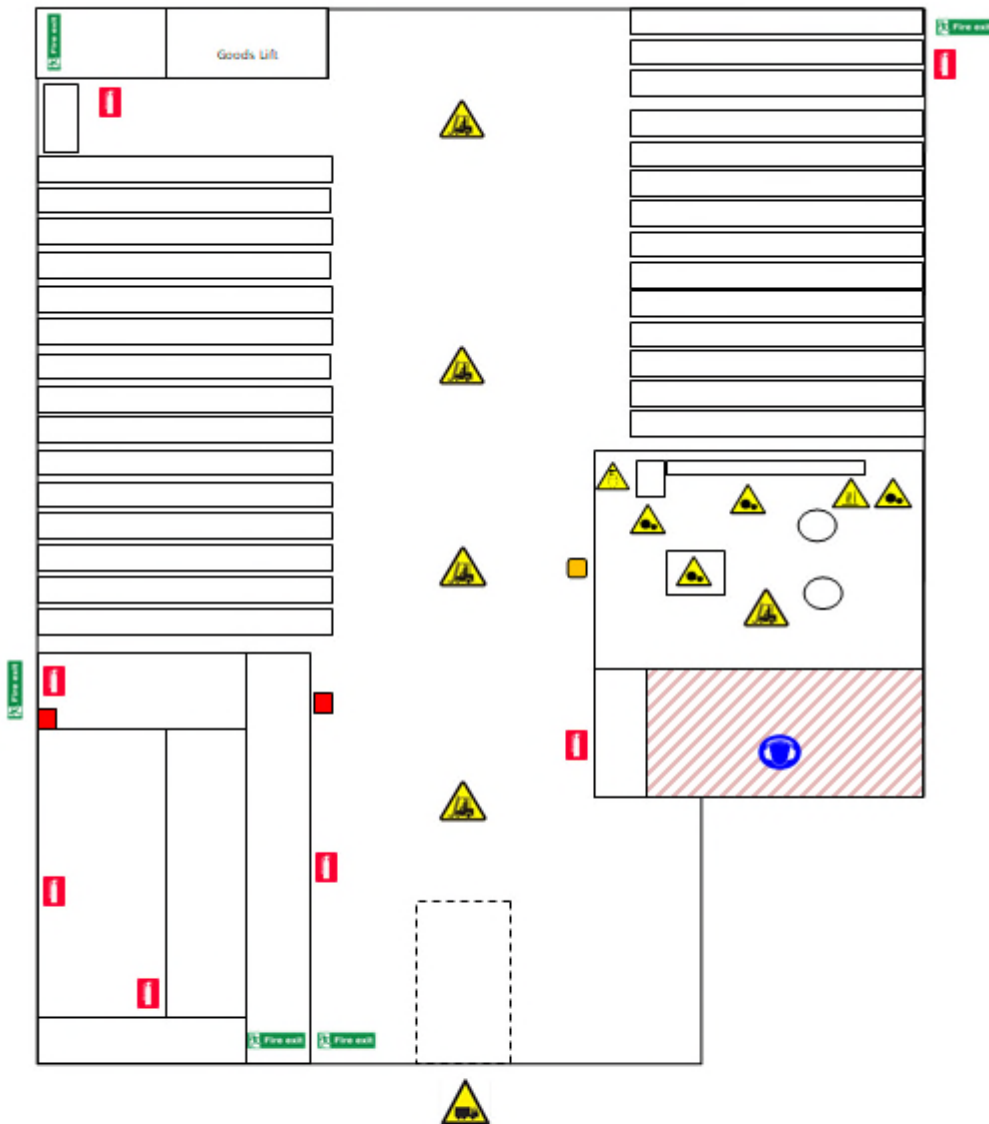


	Hearing Protection Zone		Manual Fire Alarm
	Fork Lift Trucks in Operation		Fire Extinguisher
	Switch Room (authorised access only)		Fire Exit
	Battery Charger		

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	25 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Blender Ground Floor Area Hazards Map

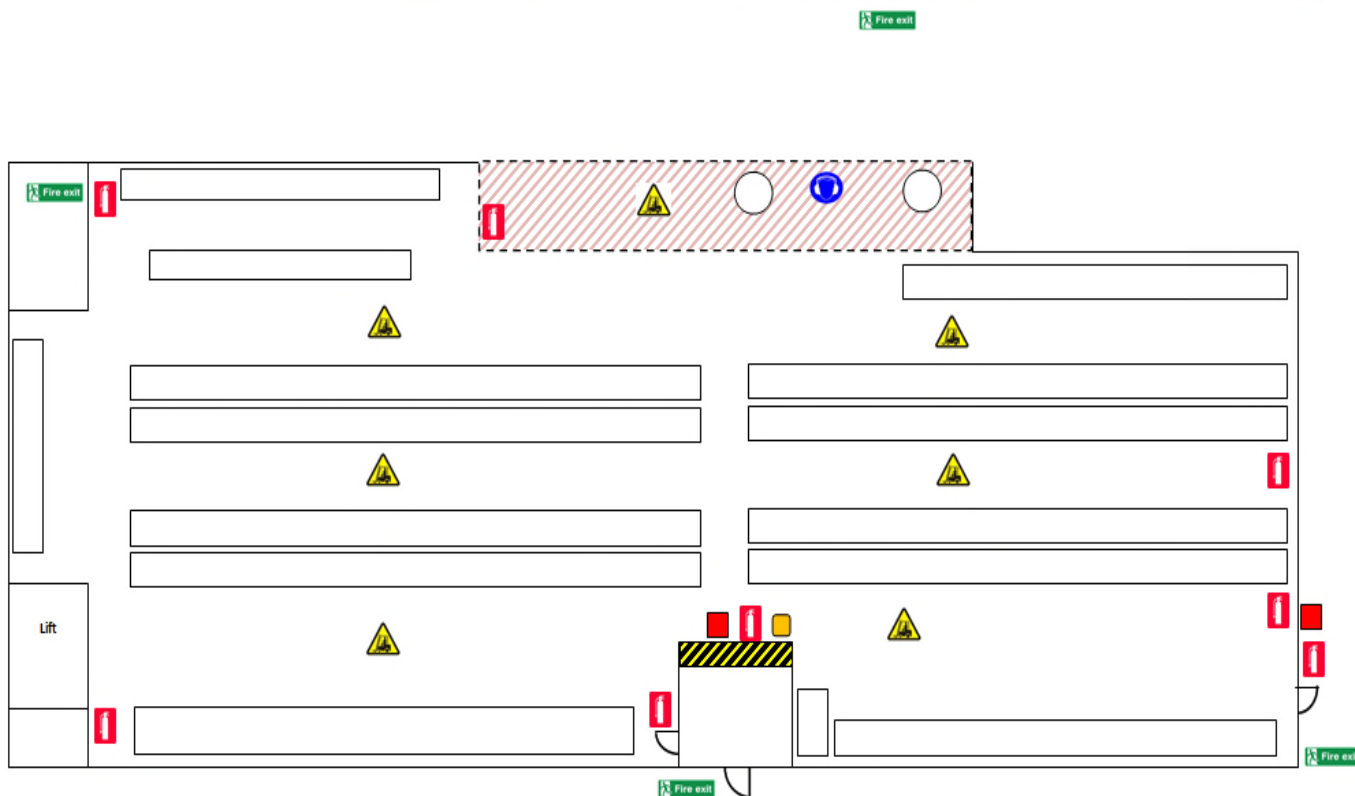


	Hearing Protection Zone (when mills are running)		Moving Machinery		Manual Fire Alarm
	Fork Lift Trucks In Operation		Hot Surfaces		Fire Extinguisher
	HGV In Operation		Battery Charger		Fire Exit
	Holst				

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	26 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Blender Second Floor Area Hazards Map

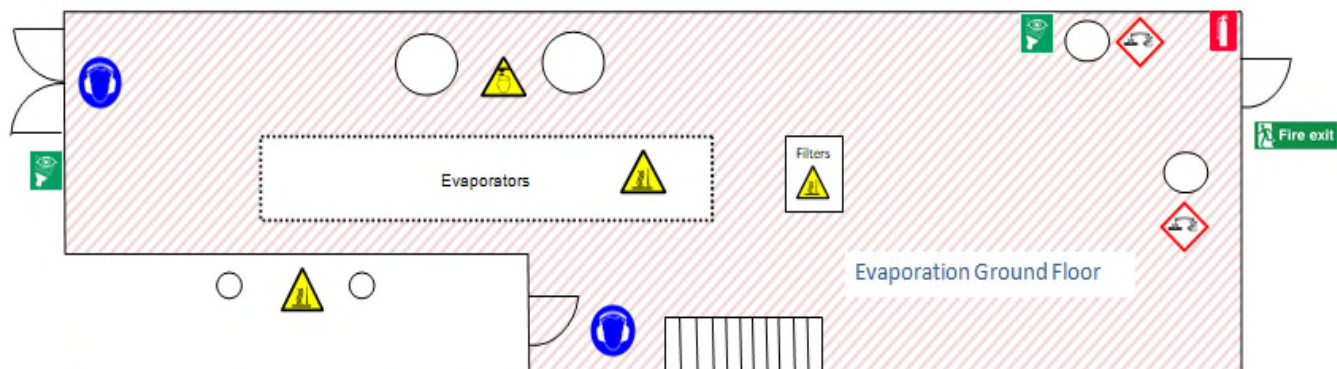
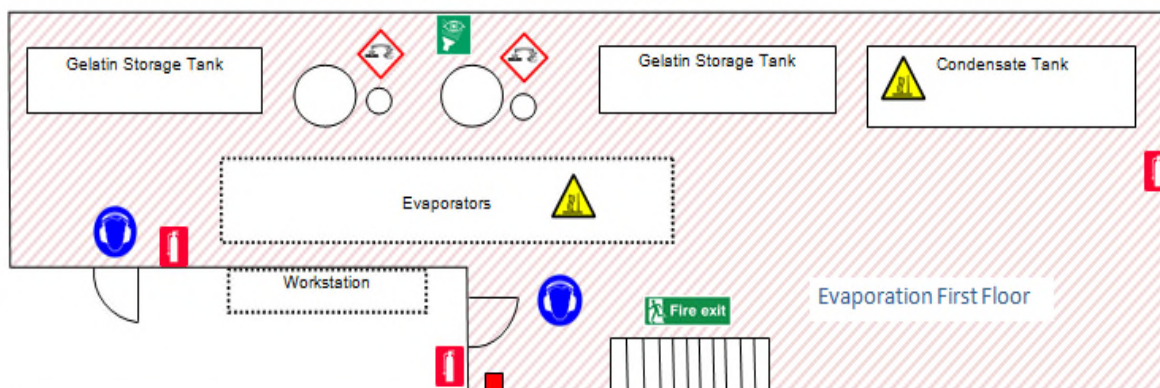


	Hearing Protection Zone (when screening)		Manual Fire Alarm
	Fork Lift Trucks in Operation		Fire Extinguisher
	Switch Room (authorised access only)		Fire Exit
	Battery Charger		

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	27 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Evaporator Area Hazards Map

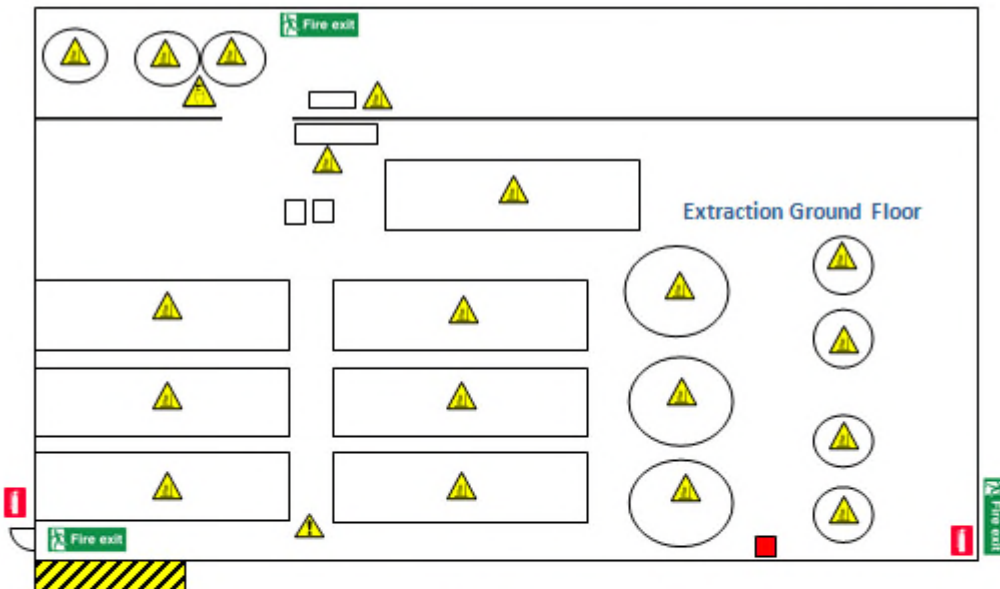
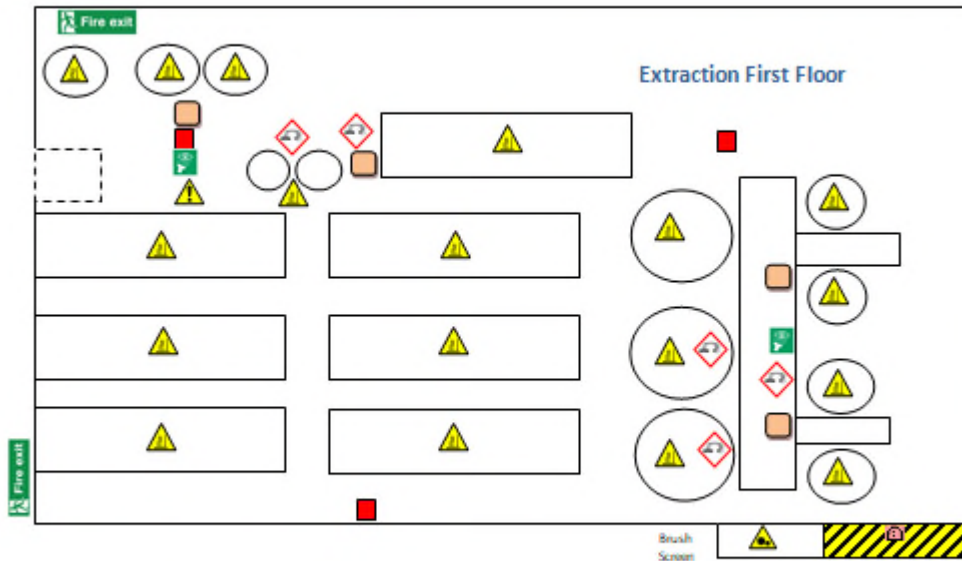


	Hazardous Chemicals		Hearing Protection Zone		Fire Extinguisher
	Bump Hazard				Eye Wash Station
	Hot Surfaces				Manual Fire Alarm

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	28 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Extraction Area Hazard Map

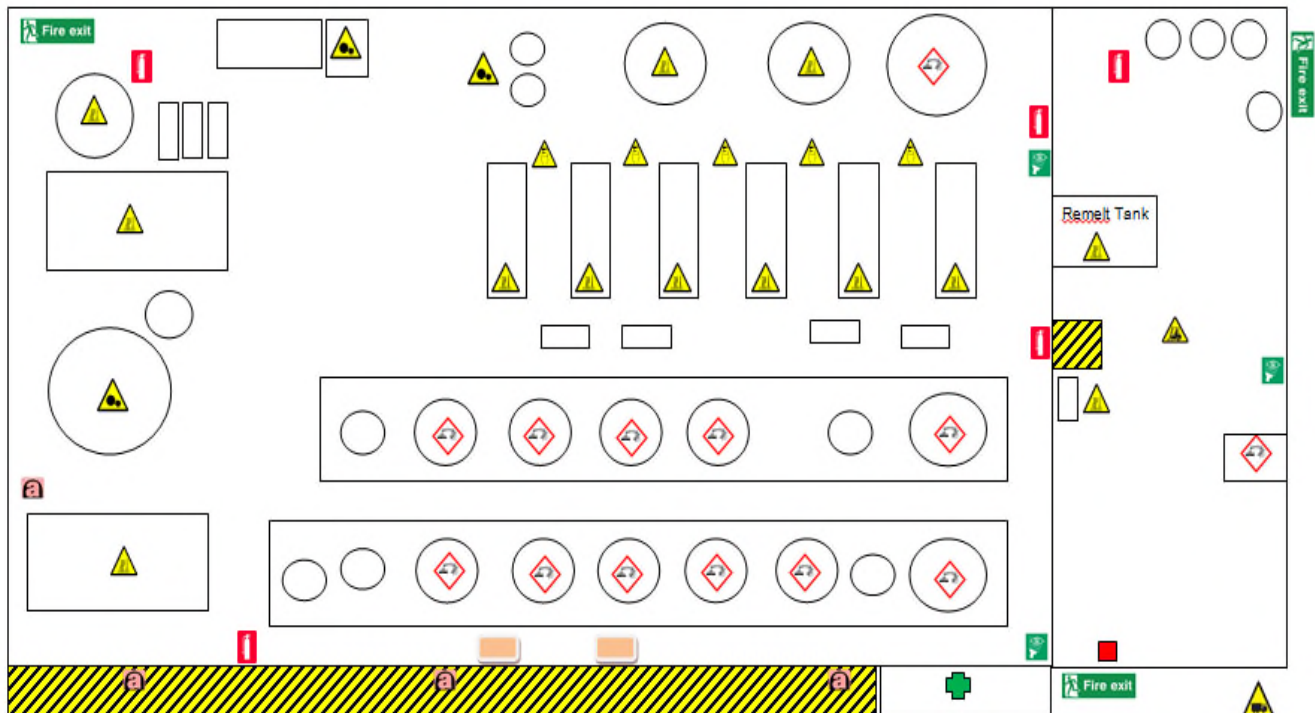


	Hot Surfaces		Asbestos (switch room wall panels)		Fire Extinguisher
	Hazardous Chemicals		Moving Machinery		Manual Fire Alarm
	Trip Hazard				Eye Wash Station
	Bump Hazard				Escape Set
	Switch Room - Authorised Persons Only				Fire Exit

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	29 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Area Hazards Map – Filter Room

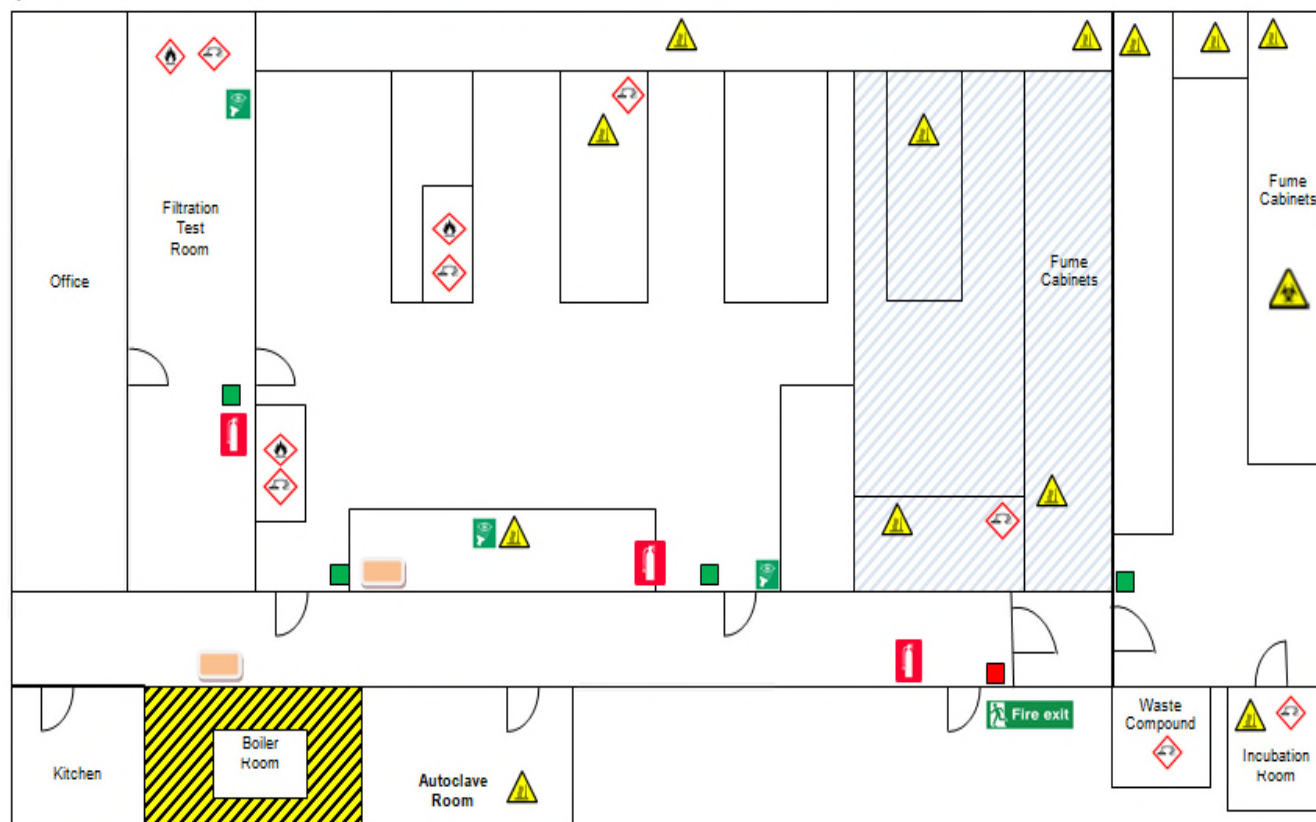


	Hot Surfaces		Fork Lift Trucks in Operation		Eye Wash
	Bump Hazard		HGV in Operation		Fire Extinguisher
	Hazardous Chemicals				Manual Fire Alarm
	Moving Machinery				Escape Set
	Authorised Access Only (switch room – 1 st floor)				First Aid Room – Defibrillator, Oxygen Therapy, Eye Wash
	Asbestos (hot water tank pipe work gaskets and switch room wall panels)				Fire Exit

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	30 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Laboratory Area Hazards Map

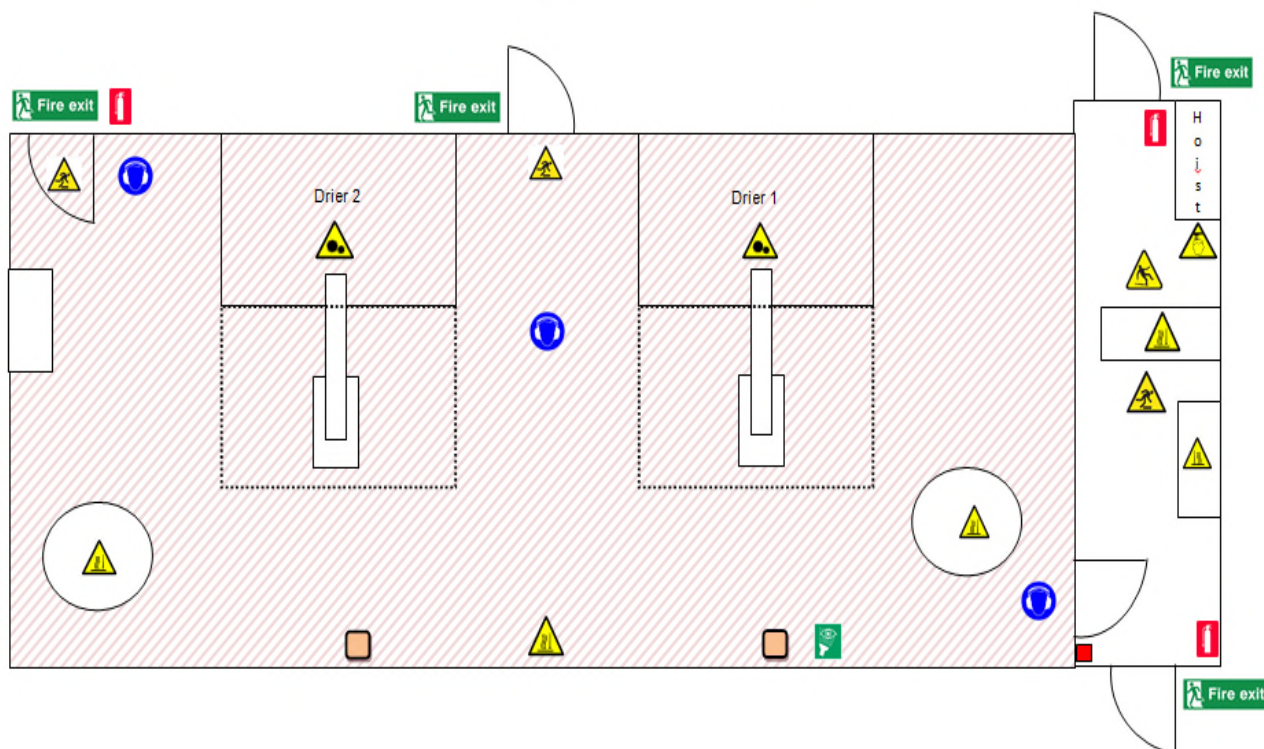


	Hot Surfaces		Eye Protection Zone		Eye Wash Station
	Bio hazard		Fire Extinguisher		Escape Set
	Hazardous Chemicals		Manual Fire Alarm		
	Flammable Substances		Gas Shut Off Switch		

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	31 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Lower Votator Area Hazard Map

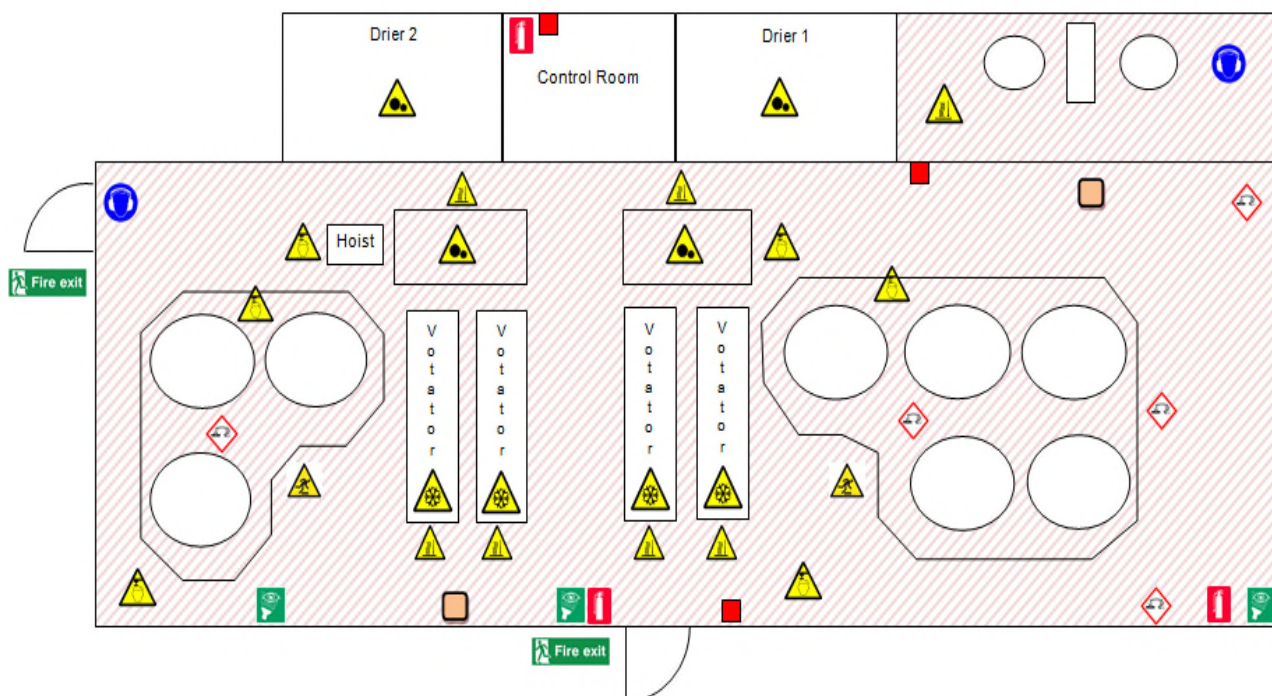


	Hot Surfaces		Slip Hazard		Fire Extinguisher
	Moving Machinery		Hearing Protection Zone		Manual Fire Alarm
	Trip Hazard		Hazardous Chemicals		Eye Wash Station
	Bump Hazard				Escape Set

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	32 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Upper Votator Area Hazard Map

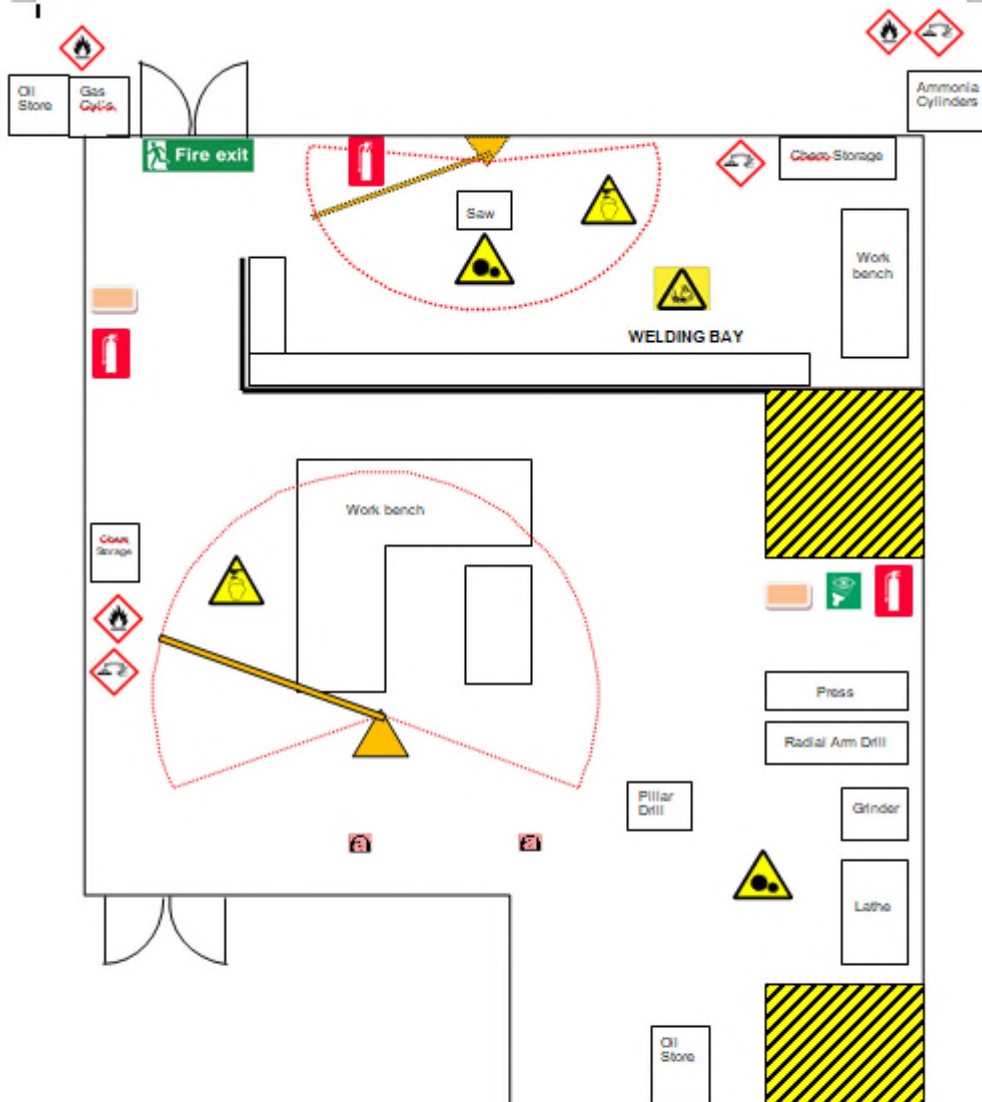


	Hot Surfaces		Bump Hazard		Fire Extinguisher
	Moving Machinery		Hazardous Chemicals		Manual Fire Alarm
	Cold Surfaces		Hearing Protection Zone		Eye Wash Station/Safety Shower
	Trip Hazard				Escape Set

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	33 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Engineering Workshops Hazards Map



	Machine Tools		Asbestos (gaskets in overhead air ducts)
	Lifting Beam - Overhead Hazard		
	Welding Area		Fire Extinguisher
	Hazardous Substance Storage		Eye Wash
	Flammable Substance Storage		Escape Set
	Electrical Switch Gear KEEP CLEAR		

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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	34 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

APPENDIX 7|– Bomb Threat Checklist

Bomb threat checklist

This checklist is designed to help staff to deal with a telephoned bomb threat effectively and to record the necessary information.

Actions to be taken on receipt of a bomb threat:

- Switch on recorder/voicemail (if connected)
- Tell the caller which town/district you are answering from
- Record the exact wording of the threat:

Ask the following questions:

- Where is the bomb right now?

- When is it going to explode?

- What does it look like?

- What kind of bomb is it?

- What will cause it to explode?

- Did you place the bomb?

- Why?

- What is your name?

- What is your address?

- What is your telephone number?

Record time call completed:

- Where automatic number reveal equipment is available, record number shown:

- Inform the Security Co-ordinator of name and telephone number of the person informed:

- Contact the police on 999. Time informed:

The following part should be completed once the caller has hung up and the Security Co-ordinator and the police have been informed.

- Time and date of call:

- Length of call:

- Number at which the call was received (i.e. your extension number):

About the caller

- Sex of caller:

 • Age:

- Nationality:

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	35 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		



Tick

Where appropriate



Language

- ☐ Well spoken
- ☐ Irrational
- ☐ Taped message
- ☐ Offensive
- ☐ Incoherent
- ☐ Message read by threat-maker

Caller's voice

- ☐ Calm
- ☐ Crying
- ☐ Clearing throat
- ☐ Angry
- ☐ Nasal
- ☐ Slurred
- ☐ Excited
- ☐ Stutter
- ☐ Disguised
- ☐ Slow
- ☐ Lisp
- ☐ Accent
- _____ Type of accent

- ☐ Rapid
- ☐ Deep
- ☐ Hoarse
- ☐ Laughter
- ☐ Familiar

If so, whose voice did it sound like?

Background sounds

- ☐ Street noises
- ☐ House noises
- ☐ Animal noises
- ☐ Crockery
- ☐ Motor
- ☐ Clear
- ☐ Voice
- ☐ Static
- ☐ PA system
- ☐ Booth
- ☐ Music
- ☐ Factory machinery
- ☐ Office machinery
- ☐ Other (specify)

Other remarks

Signature:

Date: _____

Print name: _____



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Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	36 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		



APPENDIX 8

Injured Person Refusing to Attend Hospital

Employee Refusal of Referral for Medical Treatment

This form is to be completed by any employee who refuses to attend a hospital or similar medical establishment for care or advise following recommendation to do so by their employer.

PBLeiner believe that it would beneficial for your Health and Wellbeing to attend the local hospital to seek medical advice on the following areas:

Area of concern/date of incident: _____

After informing _____ to attend hospital they have refused.

Name of person requesting the person to attend a hospital/seek medical care

Date _____ Time _____

I understand that my employer has requested me to attend a hospital/medical facility for my health and wellbeing, however I am refusing to do so.

Signed By the person refusing to attend a hospital/seek medical care.

PB Gelatins –Safety, Health & Environment Procedure

Emergency Preparedness and Response Plan (EPRP)		Reference ISO Document	NA
		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	37 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Appendix 9 – Notice Board Sign: Emergency Muster & Response

EMERGENCY MUSTER AND RESPONSE

Alarm Sounds: Stop work, Shut down equipment if possible, assemble at outdoor assembly point

Position	Emergency Role	Responsibilities	All clear
Plant Director	Emergency Controller (EC)	<ul style="list-style-type: none"> Absolute control of company action from the incident control room. Direct liaison with SIC Ensure key staff & resources are mobilised Interface with statutory authority (e.g. senior fire officer, senior police officer, NRW) Ensure safe assembly of personnel Ensure that any casualties receive immediate medical attention Ensure surrounding sites alerted Provide technical advice on hazards & procedures for containment Maintain a log of events Prevent on site traffic movements Consider preservation of evidence Initiates clean up and remediation work 	Declare stand-down Write up incident report Inform site management team of status Inform site SHE Manager of SHE impacts
Operations Manager/Production Manager/Shift Supervisor/Charge Hand	Site Incident Controller (SIC)	<ul style="list-style-type: none"> Take control at the scene Assist EC in carrying out their duties Make initial assessment of the incident to determine if it is, or may become a major accident. Ensure site alarms are sounded Summon / coordinates key personnel e.g. maintenance, first aiders. Keep EC informed 	Restart plant once approved by EC
Support Teams (Workforce)	Support to EC and/or SIC	<ul style="list-style-type: none"> Provide support to SIC Assist in carrying out tasks such as roll call, record keeping. 	Support SIC in required tasks

PB Gelatins –Safety, Health & Environment Procedure

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		Reference Risk Assessment	NA
Document Number	SHE 012	Date of Creation	25/06/2020
Revision Number	1 - DRAFT	Review Date	18/12/2023
Page	38 of 38	Author	Julie Campbell / Neil Davies
Objective	Document process for emergency on site		

Appendix 10 Fire Assembly Point

Fire Assembly Point

