

# Fire prevention plan

**Plan version:** 002

**Date of plan:** May 2021

## Site details

**Site name:** Omega Proteins Ltd

**Site address:** Greystoke Rd, Penrith CA11 0BX

**Operator name:** Omega Proteins Ltd EPR/HP3238HF

## Who this plan is for

This plan is to be kept up to date as part of the site HSEQ management system and be accessible to:

Site Manager

Health and Safety Manager

Environment Officer / Manager

Production Managers

Fire Wardens

Contractors working on site will be made aware of a risk as it relates to their job function when they go through the visitor/contractor induction process.

# Contents

|                                             |    |
|---------------------------------------------|----|
| Fire prevention plan .....                  | 1  |
| Plan version: 002.....                      | 1  |
| Types of combustible materials .....        | 3  |
| Using this fire prevention plan .....       | 3  |
| Fire prevention plan contents .....         | 4  |
| Manage common causes of fire .....          | 4  |
| Prevent self-combustion .....               | 6  |
| Manage waste piles.....                     | 7  |
| Where maximum pile sizes do not apply ..... | 8  |
| Prevent fire spreading .....                | 8  |
| Quarantine area .....                       | 9  |
| Detecting fires .....                       | 9  |
| Suppressing fires .....                     | 10 |
| Firefighting techniques .....               | 10 |
| Water supplies .....                        | 11 |
| Managing fire water.....                    | 11 |
| During and after an incident .....          | 12 |

## **Types of combustible materials**

### **Combustible waste**

n/a – the fire plan relates to fuel used in the thermal oxidiser (see next section)

### **Other combustible materials**

Category 1 MBM for fuel use stored in designated storage area.

Woodchip approved as a biomass fuel (alternative fuel)

## **Using this fire prevention plan**

### **Where the plan is kept and how staff know how to use it**

This plan is to be kept up to date as part of the site HSEQ management system and be accessible to:

Site Manager

Health and Safety Manager

Environment Officer / Manager

Production Managers

Fire Wardens

Contractors working on site will be made aware of a risk as it relates to their job function when they go through the visitor/contractor induction process.

### **Testing the plan and staff training**

The plan will be reviewed when the plant is commissioned and the effectiveness kept under review as part of the HSEQ management system.

Relevant staff will be trained in the use and operation of the plan and records kept on the site training matrix.

Training exercises will be completed annually.

## **Fire prevention plan contents**

### **Activities at the site**

The site is a Category 3 Animal By-product rendering plant and the main activities are listed in the Environmental Permit (EPR /HP3238HF).

The Fire Prevention Plan is to cover the storage and use of MBM and / or woodchip as a fuel for the new thermal oxidiser plant.

### **Site plan**

See document OP-PV-RO6-Plans

### **Plan of sensitive receptors near the site**

See document OM-SR-Plan

## **Manage common causes of fire**

### **Arson**

The site is fenced and not left unattended. A security gate is in place and the entrance is manned.

CCTV operates throughout the site and is in operation 24/7.

### **Plant and equipment**

There is a fuel storage area for the Biomass fuel (MBM or Woodchip)

This is tipped into hoppers and then taken through automatically to the kiln. Combustion heats up the post combustion chambers, which are used for odour abatement of the associated production processes. Linked boilers make steam via heat recovery.

The flue gases are cleaned through a bag filter system prior to emission to air.

The fire plan is concerned with the storage of MBM/ Woodchip fuel and the combustion of this fuel in the kiln.

This fire could go through the fuel feeding system to the outside and to prevent this from happening a fire retention system is being installed inside of the fuel hopper of the feeding system which is attached to the kiln head.

## Fire prevention plan

This consists of water valves that in case of fire, open the feeding of water inside the hopper and into the kiln head, flooding both with water.

## **Electrical faults including damaged or exposed electrical cables**

### **Electrics certification**

The electrical cables were certified as part of the commissioning process.

### **Electrical equipment maintenance arrangements**

The site has a preventative maintenance schedule for all equipment.

## **Discarded smoking materials**

### **Smoking on site policies**

Smoking is limited to a designated area.

## **Hot works safe working practices**

Any work of this nature will be carried out under a Permit to Work procedure, to be signed off for each occurrence by a responsible person.

## **Industrial heaters**

### **Use of industrial heaters**

n/a not used in this location

## **Hot exhausts and engine parts**

### **Fire watch procedures**

Managed by Fire Wardens (see HSEF-17 Fire Plan)

## **Ignition sources**

There are no direct ignition sources in the fuel storage area. Gas bottles are stored locked in a separate location.

A fire risk assessment is carried out by an external company annually and the combustion plant is to be added to this assessment. Fire Officers attend site on a 6 monthly basis to update their Fire Risk Assessment.

## Prevent self-combustion

### General self-combustion measures

To limit self-heating in the MBM fuel, the following are done:

Temperature checked prior to despatch to site and on arrival

Max temp for transport – 55 °C

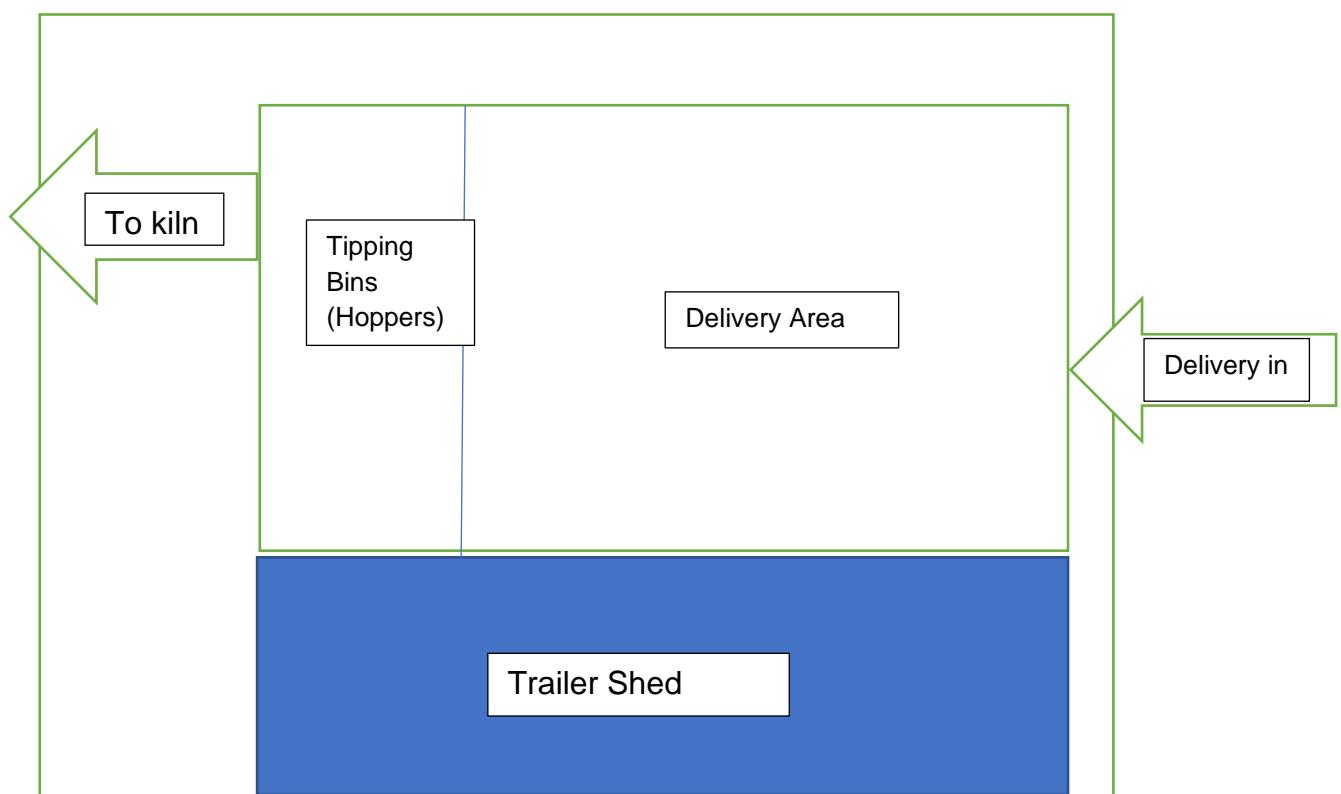
Max temp on arrival – 60 °C

If material is between 50 – 70 °C it can be spread out to cool, if not feasible - over temperature material will be rejected back to supplier

The MBM will be spread out in the delivery area, where there is sufficient space for the vehicle to tip on the floor and still allow tipping to a bin. This area is under cover and the air is extracted to odour abatement (existing site biofilters).

It is not anticipated that the woodchip will be prone to self heating in the way MBM is therefore this does not require a temperature check.

Building Plan:



## **Manage storage time**

Maximum storage 1-2 days supply, fuel used at 4-5 tonnes per hour.

## **Method used to record and manage the storage of all waste on site**

Loads are checked in at the weighbridge and all tickets have a date and time of arrival.

## **Stock rotation policy**

Not required – used as it arrives. Stored in 2 bins which are alternated for use.

## **Monitor and control temperature**

### **Reduce the exposed metal content and proportion of 'fines'**

n/a not that type of waste

### **Monitoring temperature**

Temperature of MBM fuel is checked prior to leaving the supplying site therefore should arrive at a temperature below 60 °C. It is also checked on arrival and can be spread out to cool if required.

### **Controlling temperature**

Material will not be stock piled. Any heat generating in a pile will be dissipated by spreading out the material.

### **Dealing with hot weather and heating from sunlight**

The material is stored under cover and used quickly (see above for storage and temperature checks)

## **Waste bale storage**

n/a no waste bales at this site

## **Manage waste piles**

This section is not applicable to the material stored at this site.

## **Maximum pile sizes for the waste on your site**

n/a

## **Storing waste materials in their largest form**

n/a

## Where maximum pile sizes do not apply

### Waste stored in containers

#### Types of containers you are using

n/a not using these type of waste containers

The material for fuel is tipped into hoppers within the building. These are made of stainless steel and set in concrete. They have close fitting lids made of stainless steel.



#### Accessibility of containers

n/a not using these type of waste containers

Fixed hoppers within the tipping shed.

#### Moving containers in a fire

n/a not using these type of waste containers

These are fixed hoppers and would remain in situ, fire risk would be mitigated by the fact they are set in concrete and securely lidded.

## Prevent fire spreading

### Separation distances



Fire prevention plan

The fuel is stored in a designated storage area and there is a maximum size (1-2 days supply).

### **Fire walls construction standards**

The fuel bin area is made of concrete.

### **Storing waste in bays**

n/a not storing waste in bays

## **Quarantine area**

### **Quarantine area location and size**

Additional area not required – sufficient space in delivery area or on yard outside that area.

### **How to use the quarantine area if there is a fire**

If safe to do so, remove fuel from delivery area (i.e still in delivery vehicle) to external yard area.

### **Procedure to remove material stored temporarily if there is a fire**

In case of a fire waiting vehicle(s) would be driven to a safe distance away on the site.

## **Detecting fires**

### **Detection systems in use**

There is no flame and heat detection as this is a combustion plant.

### **Certification for the systems**

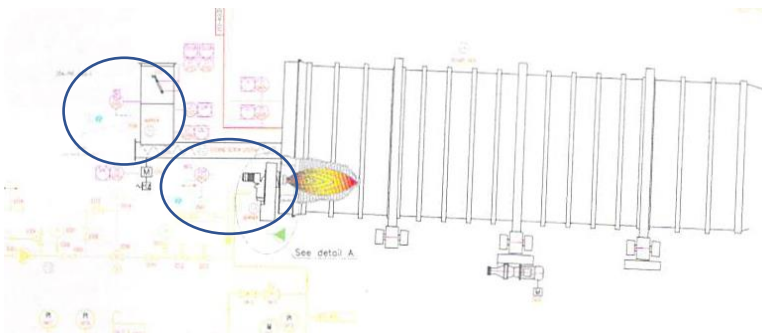
n/a

## Suppressing fires

### Suppression systems in use

Fire fighting equipment will be installed at every exit and tested annually by an external company.

The only point with fire in the thermal oxidizer project is in the kiln and this fire could go through the fuel feeding system to the outside and to prevent this from happening a fire retention system will be installed inside of the fuel hopper of the feeding system which is attached to the kiln head. See picture below:



This consists of water valves that in the case of a fire, open the feeding of water inside the hopper and into the kiln head, flooding the hopper and the kiln.

Additional manual systems:

Water supply for oxidiser / hose pipe locations (to be marked on map)

Fire Extinguishers suitable for meal stores are foam or water.

Please see the Fire Plan – HSEF 17 attached in which was created to assist the fire Officers in the event of a fire onsite. Tank 12 has had a hose fitted so that in the event of a fire extra water would be there if necessary.

### Certification for the systems

This will be completed on commissioning of the plant and copies kept with the Fire Plan.

## Firefighting techniques

### Active firefighting

Refer to HSEF-17 Fire Plan – this details evacuation procedures, location of fire extinguishers, location of fuel and electric shut off points and duties of Fire Wardens.

## Water supplies

### Available water supply

Mains water, bore hole water supply, effluent permeate water.

### Show the calculation for your required water supply

| Maximum pile volume in cubic metres | Water supply needed in litres per minute | Overall water supply needed over 3 hours in litres | Total water available on site in litres                                                                 |
|-------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Enter volume, for example, 300      | Pile volume x 6.67                       | Water supply per minute x 180                      |                                                                                                         |
| 150                                 | 1,000.50                                 | 180,090                                            | 18,700 litres per hour from bore hole + mains water + 500m <sup>3</sup> permeate water in effluent tank |

## Managing fire water

### Containing the run-off from fire water

See document EID 36 – extract below.

1. Check the site drain plan – this will detail where sensitive locations are. The fire service will also need to be made aware.
2. Where possible water should be contained within the building(s) to drain to the existing effluent system. Spill kit booms and sand bags should be used to achieve this.
3. It will be inevitable that some of the water will run out onto the yard areas – in this case ensure sand bags (or similar) are positioned at the lowest point on the yard to protect Myers Beck.
4. The following agencies must be made aware of the situation:
  - United Utilities (in respect of effluent discharge)
  - Environment Agency (in respect of potential contamination of a water course and for permit requirements)
5. Secondary Containment – where safe to do so, the tractor can be used to suck water from sumps and remove it to either the nearest bund(s) or to the effluent plant

balance tanks.

6. The effluent must be contained within the chambers and/or tanks until confirmation that it can be discharged to sewer is received from United Utilities. Close off the discharge valve to UU.

7. Space will be available in the effluent plant, utilising the available balance tanks and potentially the free clean water tank for additional space.

8. It is not recommended that the spare aeration lane is used as solids will contaminate the bubble diffusers.

9. Water can be stored prior to treatment and discharged at a later time (see point 6 for a guide to potential volumes).

10. After the event, make sure drain gullies and sumps are cleared of solid material / debris. A clean-up plan should be agreed with the Environment Agency.

11. The collected waste water will be treated and tested prior to discharge to sewer (in agreement with United Utilities).

The CIRIA Guide 736 (Containment Systems for the Prevention of Pollution) gives figures for the amount of fire water in terms of the fire risk of the site. Due to the small amount of flammable liquids on site, it would be classed as low risk and as such it is estimated that approximately 540 to 1080m<sup>3</sup> of water would be needed over four hours for the whole site.

## **During and after an incident**

### **Dealing with issues during a fire**

Document HSEF -17 deals with evacuation procedures for the whole site.

The weighbridge will be closed to arriving vehicles and the entrance will be left clear for emergency vehicles. Transport planning will be informed if the fire is extensive to hold any deliveries of raw material for the rest of the site.

### **Notifying residents and businesses**

Residents and business not within a relevant distance, but closest will be telephoned depending on wind direction and extent of fire.

### **Clearing and decontamination after a fire**

Area will be cleaned / washed down.

Ash will be disposed of to an approved site (as per the non-hazardous ash from the combustion plant)

## **Making the site operational after a fire**

Area to be checked by Fire Service (if a large fire and the Fire Service was called) or by the Fire Warden (if a small localised event).

Site engineer will confirm that all equipment is suitable for power to be restored.

Combustion plant will be re-started.

Engineers will check for correct operation.

Fire Wardens will replace all fire extinguishers and ensure all suppression systems are in working order.

END