

Immingham Briquetting Works Western Access Road Immingham Dock Immingham DN40 2QR

SITE EMERGENCY PLAN

SITE EMERGENCY PLAN

OBJECTIVES

The objectives of the Emergency Plan are to contain and control major incidents on-site and to react to major incidents at other sites on the dock. The Plan follows an assessment of the situation followed by a hierarchy of responses:

- 1. primarily to safeguard employees working on the and any other persons which may be affected by an on-site incident.
- 2. secondly to safeguard the environment by adequate containment of the incident to minimise emissions
- 3. and thirdly to minimise damage to plant.

The Emergency Plan is designed to be capable of dealing with the largest incident that can be reasonably foreseen, but concentrates on those events that are most probable. The Plan is flexible so that the response can be tailored to the severity of the incident. The assessment is carried out by the experienced supervisors on site and then reassessed by the senior plant management.

The Works' has its own resources that are clearly defined in the Plan. External emergency services such as the fire brigade have elements of the plan and have had familiarisation tours of the Works.

COAL PRODUCTS LTD IMMINGHAM BRIQUETTING WORKS

SITE EMERGENCY PLAN

CONTENTS

Section	Title	Page
1	Activation of Emergency Plan	3
2	Key Emergency Personnel	5
3	Duties of Key Personnel	7
4	Key Emergency Areas & Services	12
5	Plant Shutdown/Isolation	14
6	Details of Hazardous Materials on Site	16
7	Emergency Call-out list	17
8	Civil Disturbance, Bomb Threat etc	20
9	Communications with the Media	23
10	Incident Reporting Procedure	24
11	Flooding Plan	25
Appendices		
1	Site Plans	26
II	Spillage Action Plan	27
III	List of First Aiders	34
IV	Fire Extinguisher Listing	35
V	Fire Prevention and Control	38

SECTION 1 <u>ACTIVATION OF EMERGENCY PLAN</u>

The Emergency Plan should be activated wherever there is an incident on the Immingham Briquetting Works which;

- could or has caused serious injuries to personnel;
- could or has safety implications for plant or personnel outside the Works boundary
- could or has lead to significant emissions to the environment
- could or has caused major damage to the plant;

<u>NOTE</u>: The Emergency Plan is a flexible response to all incidents on the plant and only those aspects of the Emergency Plan applicable to the particular circumstances of the emergency need be implemented.

Emergencies that can be reasonably foreseen are:-

- major fire in either Process Plant Building;
- major fire in stocking areas which is endangering the plant;
- major explosion in either Process Plant Building;
- fire in gas-oil tanks/molasses tank.
- major leak of, for example, gas-oil, phosphoric acid which could lead to fire or injury.
- leak or fire involving natural gas or liquified petroleum gas (LPG).
- escape of toxic/flammable materials from local chemical companies.

In addition to the Works Emergency Plan, there is also the ABP Immingham Docks Emergency Plan, which is designed to establish a link between the various operators using the Dock facilities. The basis of the ABP Plan is to provide telephone calls allowing the various company sites to react with to a single incident. Given the large variety of complex chemical operations on the dock site, the most likely activation of the Works Emergency Plan will be in response to an incident on another site. Additionally should an incident occur on the site, its possible affects on adjacent sites should be considered. The ABP Emergency Plan is shown in Appendix II and is placed in both controls rooms and office block.

A brief synopsis is as follows:

After first contacting the relevant emergency services if necessary, inform Port Security on Immingham (01469) 571556 of the incident, detailing:

Location
Type of incident
Main hazard (eg, toxic fumes, flammable liquid fire)
Casualties (if any)

If the ABP Emergency Plan has been activated by an incident at another site, the Works will be contacted by the quickest possible means and advised as to the incident. The Plan quantifies incidents into 3 categories:

Code 1: Confirmation of an incident but no active response required.

Code 2: Evacuation of all personnel to an emergency assembly point.

Code 3: All personnel to stay indoors, close windows and ventilation systems

The ABP plan is reproduced in full in Appendix II and is placed in both control rooms and office block.

SECTION 2 <u>KEY EMERGENCY PERSONNEL</u>

In the event of an emergency, the two key personnel are:-

1 <u>INCIDENT CONTROLLER</u>

The Shift Team Leader will assume the position of Incident Controller and take charge initially until the Site Main Controller arrives. If they are incapacitated or unavailable, the nominated team leader of the relevant plant will assume the position.

2 SITE MAIN CONTROLLER

The Works Manager (or the Deputy Works Manager) will take overall responsibility for directing operations from the Emergency Control Centre if already on site or when called in by the Incident Controller outside normal hours.

Works Manager - Mr. N. Rowbotham - 01724 349244

07770 858768

Production Manager - Mr M Turrell - 01469 510587

07473 198366

Other nominated Key Personnel include:-

- CONTROL ROOM OPERATOR

Responsible for calling Emergency Services and Key Personnel and shutting down plant as directed by Incident Controller.

- SHOVEL DRIVER

Responsible for meeting Emergency Services at Gate.

PROCESS OPERATOR

Responsible for shift rollcall and advising Site Main Controller of the shift personnel position. Assist with full plant rollcall if necessary.

<u>NOTE</u>: The nominated key personnel listed above may not be formal job titles but the functions must be carried out. In order to have flexibility it may be more appropriate for a member of office staff or security to assist. Outside normal hours the shovel driver is named as they are the most mobile therefore that task would be performed by which ever operator was in or nearest a shovel and the Process Operator function should be carried out by the process operator most appropriately positioned.

<u>NOTE</u>: Other Immingham Briquetting Works personnel will assume duties as directed by Incident Controller, e.g. incident containment, first aid, isolation of plant, etc.

Works Manager / Production Manager

Mr. N. Rowbotham – 01724 349244, Mobile – 07770 858768 Mr M Turrell – 01469 510587 Mobile 07473 198366

Responsible for checking that the plant is in a safe condition and advising Site Main Controller of any potential hazards on plant. Arrange for relief operators to come in, if required.

Responsible for Contractors on site for whom he is the supervising officer. Ensuring that an adequate system exists for their safe assembly and the passing of details of missing personnel to the Site Main Controller and Incident Controller.

Laboratories

Compliance Manager -Mr C. Smithson – 01469 571700 (218)

Provide laboratory assistance and co-ordinate safety matters relating to spillage and environmental issues.

Engineering

Engineering Manager -Mr M. Warman – 01472 594979, Mobile – 07767 341281

Provide engineering assistance and co-ordinate safety matters.

Responsible for day maintenance personnel and Contractors on site for whom he is the supervising officer. Ensuring that an adequate system exists for their safe assembly and the passing of details of missing personnel to the Site Main Controller and Incident Controller.

Administration

Dave Dowie – 01469 571700 (231)

Shift Operations

The Shift Manager / Shift Leader assumes the role of Incident Controller whose responsibilities are detailed in section 3.

Outside normal working hours and in the absence of the key personnel as listed, it is the responsibility of the key personnel to ensure that the necessary role call systems are available to the Incident Controller.

SECTION 3 <u>DUTIES OF KEY PERSONNEL</u>

- 1 INCIDENT CONTROLLER Shift Team Leader
- a) As soon as they has been made aware of an incident, the Incident Controller should assess the scale of the emergency and decide whether a major emergency exists or is likely. If so, they should immediately activate the Emergency Plan.
- b) They should assume the duties of the Site Main Controller, pending the latter's arrival, in particular to:-
- ensure that the emergency services have been called out by the Control Room Operator, if works resources cannot cope;
- direct the shutting down and evacuation by the Control Room and other Operators of the other plant areas, etc., likely to be affected;
- ensure key Personnel have been summoned by the Control Room Operator;
- ensure that Shovel Driver has gone to meet the Emergency Services at Main Gates and direct them;
- contact ABP on (01469) 571556 informing Port Security of the incident. See ABP Emergency Plan, Appendix II and is placed in both control rooms and office block.
- c) Their main function, however, is to direct all operations at the scene of the incident, e.g.
- the general containment of the incident, until the arrival of the emergency services, when he should hand over control to the senior officer in charge;
- care and removal of casualties;
- evacuation of non-essential workers to assembly points;
- ensure that the incident is contained with regard to damaging emissions to the environment and consider the isolation of the effluent system where safe to do so

- d) They should also:-
- set up a communications point with radio, telephone or messenger contact with the Emergency Control Centre when this is brought into use;
- give advice and information as requested to the emergency services;
- brief the Site Main Controller when they arrives and keep them informed of developments.
- contact ABP if the emergency situation is or is likely to affect other dock users, see ABP Emergency Plan, Appendix II, and is placed in both control rooms and office block.
- e) When the Site Main Controller has arrived and taken charge of the operations, they should assist the Controller with making the plant safe, shutting down, etc., as directed.

- 2 <u>SITE MAIN CONTROLLER</u> (Works Manager or Appointed Deputy)
- a) The Site Main Controller should go to the Emergency Control Centre and take over from the Incident Controller responsibility for overall control.
- b) If they decide that a major emergency exists or is likely, they should ensure that the emergency services have been called;
- c) Depending on the circumstances, they should then:-
- ensure that an assembly rollcall is completed
- ensure that key personnel are called in;
- continually review and assess possible developments to determine the most probable course of events;
- direct the shutting down of the plant and its evacuation in consultation with the Incident Controller and key personnel;
- ensure that casualties are receiving adequate attention. Arrange for additional help if required.
- ensure that due regard is given to safeguard the environment and assess the need to contain emissions
- liaise with officers of the fire and police services; provide advice on possible effects on areas outside the works; ensure that personnel are accounted for;
- liaise with ABP with regard to other Dock users and containment logistics;
- liaise with ABP with regard to off-site logistics;
- control traffic movement within the works;
- arrange for a log of the emergency to be maintained;
- where the emergency is prolonged, arrange for the relief of site personnel and the provision of catering facilities;
- ensure that proper consideration is given to the preservation of evidence;
- control rehabilitation of affected areas after the emergency;
- inform Coal Products senior management of the incident via the CPL Industries Incident Report System and call in personnel to take control of contact with the media, personnel and legal matters. More details in SECTION 10.

3 CONTROL ROOM OPERATOR

The Control Room Operator should, when directed by the Shift Team Leader:-

- a) call out Emergency Services;
- b) proceed to shut down Plant safely;
- c) call out All Key Personnel in order as Section 7.

<u>NOTE 1</u>: If key personnel are on site at time of incident raise alarm by the use of the plant telephone system. These actions can be carried out from either Plant Control Room if it is safe to do so, otherwise the Control Room Operator will go to the Emergency Control Centre.

<u>NOTE 2</u>: If the telephone system becomes inoperative, mobile phones or plant radios should be employed to contact people. A standard telephone is kept in the Emergency Plan box in the Emergency Control Room.

NOTE 3: On calling the Emergency Services you will have some questions to answer, these are likely to be as follows:

- a) type of service or services required;
- b) address of incident;
- c) name of person making the call;
- d) the telephone number you are calling from.

If you have any relevant information to pass on, then do so, for example, if there are any casualties.

If it is a fire involving chemicals, or gasses or fuel oil, all the information will help them in being prepared with the equipment and personnel to tackle the incident that they are attending, please try to be clear and precise with any information given.

4 SHOVEL OPERATOR

The Shovel Operator should, when directed by the Incident Controller (Shift Team Leader), go to the Main Gates to meet the Emergency Services and direct and brief them.

The Shovel Operator should then check that the Fire Pumps operate when required and, if necessary, start manually if there is a problem with the automatic system.

The Shovel Operator should inform Security of the problem and not to allow any other parties on site until the all clear has been given. Security should also be informed that the Emergency Plan is in operation.

5 PROCESS OPERATOR 1

The Process Operator should, when directed by the Incident Controller, go to the nearest Process Personnel Assembly Point them move to the other plant assembly point and provide a shift complement list to the Site Main Controller.

<u>NOTE</u>: If the offices have to be evacuated, Office Personnel plus visitors will assemble at the Main Gate and be checked by the Office Fire Marshalls –

Steve Martin Mr Sam Beardshaw Danielle Wrightam Camila Tyler Adrian Harbord Daniel Fay Joe Margason Tracy Backrath

SECTION 4 <u>KEY EMERGENCY AREAS & SERVICES</u>

AREAS:

EMERGENCY CONTROL CENTRE

Located in Permit Office (in the main site office block)

- Operations to handle the emergency will be directed and co-ordinated from the Emergency Control Centre.
- It will be attended (as appropriate) by the Site Main Controller, Key Personnel, and representatives of fire, police service, etc.

The Emergency Control Centre will contain the following;

- Telephone Immingham (01469) 571700 ext 205
- Radio Equipment
- Copy of Emergency Plan
- Plans of Plant
- Facility to generate personnel site listing
- List of Key Personnel, addresses and telephone numbers
- Note pads, pencils, etc.
- Emergency telephone
- List of Trained First Aiders

FIRE ASSEMBLY POINTS

- <u>SHIFT TEAMS</u>

Office car park unless directed otherwise by Shift Leader. Shift Leader to determine safe location by radio.

- ALL OTHER PERSONNEL, CONTRACTORS & VISITORS

Office Car park

AMBULANCE ASSEMBLY POINT

Visitors Car Park adjacent to Main Entrance to Plant.

MORTUARY

Shift workshop on the relevant plant.

All these areas are shown on the Emergency Site Plan along with First Aid Boxes, Fire Extinguishers and Fire Hydrants.

SERVICES:

EMERGENCY LIGHTING

Both plants and the main office block have emergency lighting.

FIRE WATER SYSTEM

Both plants have an independent Fire Water System feeding hydrants suitable for standard 2" firehoses. On both plants there are firebox positions housing firehoses and nozzles suitable for fire containment. The Site plan posted in the Control Rooms gives the location for the hydrants and firebox locations.

The independent fire mains are fed from the water storage tanks on each plant. Plant 1 has two tanks with a combined storage capability of 896m³ and the filling mechanism always attempts to keep the tanks full. Plant 2 has a single tank with a capacity of 480m³ using an automatic filling system, which maintains the level above 92%. The Works normal water supply is process water from Anglian Water Authority, which comes onto site beside the oven on MHT 2. The supply fills all the tanks simultaneously but MHT 2 gets first priority. There is an emergency supply available from Associated British Ports direct to MHT 1 tanks via a break tank.

The fire mains are fed by a flexible pump system;

On Plant 1 - the fire main is kept at 8 bar pressure constantly by an electric jockey pump. If the pressure falls due to excessive use the main electric pump, capable of 300m³/hr, can be energised. In the case of an electrical fault there is a standby diesel pump fed from an exclusive fuel storage which is capable of a similar duty. The diesel can be set for automatic start on low fire main pressure.

On Plant 2 - the fire main is kept at 10 bar pressure constantly by the electric fire pump. In the case of electrical failure there is a back-up diesel pump which is set for automatic start on low firemain pressure. Both pumps are capable of 300m³/hr.

The diesel fire pumps are checked weekly on both plants. On both plants the running condition of all the pumps and their availability is monitored by the plant PLC. The fire hoses and nozzles in the Fire Boxes are for fire control only.

SECTION 5 PLANT SHUTDOWN/ISOLATION

5.1 PLANT SHUTDOWN

Both plants are PLC controlled giving the operator a wide choice in shutdown scenarios. This flexibility should be utilised in response to Emergency Situations ensuring that common-sense balances the hazards of the Control Room Operator not immediately evacuating and the hazards presented by an instantaneous stop with the solids system and oven full.

In the event of electrical failure or damage to any plant, the area of plant will either fail-safe or the PLC will shutdown the plant within its control. Ancillary plant is not controlled through the PLCs and can be stopped locally or in the MCC in the Process Plant Building.

5.2 PLANT ISOLATION

Electrical Supply (See Site Plan in Appendix I, and displayed around the site.) If the electricity needs to be isolated there are various points at which this can be achieved.

TO ISOLATE THE SITE - pull the breaker in the YEB Electrical Sub-Station or use the remote switches in Plant 1 11KV Room.

TO ISOLATE PLANT 1 - pull the circuit breakers in the 11KV Room or isolate the two boards in the MCC

TO ISOLATE PLANT 2 - pull the circuit breakers in the 11KV Room on Plant 1 or isolate the two boards in the MCC.

These isolations should only be undertaken by a suitably Authorised Person.

Natural Gas

For Plant 1 - the main is manually isolatable at the road corner opposite the compressor house and remotely in the control room via the ESD or by any local stop button at the generator base.

For Plant 2 - the main manual isolator is situated by zone 1 and the auto is remotely shut-off via the stop button in the control room.

Molasses Tanks

Hand valve on outlet line (inside bund) on both plants.

Diesel Tanks

Hand valve on outlet line from all the tanks on site (in the bunds).

Sulphuric Acid Tanks

Hand valve on outlet line from tanks (in bund).

Compressed Air System

Depending on the emergency it may be necessary to decompress the system to prevent harm to Emergency Personnel. The receivers on both plants have isolation valves and the linking main is valved at both ends.

SECTION 6 DETAILS OF HAZARDOUS MATERIALS ON SITE

The following hazardous chemicals and materials are stored on site (see Site Plan in Appendix I, and displayed around the site):-

- Sulphuric acid
- Sodium hydroxide solution (caustic soda liquor)
- Gas oil
- Effluent treatment chemicals

COSHH Data Sheets are located in the MSDS Folder on the Safety Drive.

Spillage action plans for these materials Appendix III.

SECTION 7

<u>DIRECTORY OF KEY PERSONNEL, EMERGENCY SERVICES,</u> SUPPLIERS AND LOCAL CONTRACTORS

A) <u>KEY PERSONNEL</u> <u>CALL OUT</u>

<u>Management</u>

N. Rowbotham 01724 349244

07770 858768

Production Managers –

Production Managers - Mr M Turrell 01469 510587

07473 198366

Engineer

M. Warman 01472 594979

07767 341281

Laboratories

C Smithson 01472 885520

07766 775428

Home Numbers & Mobile Phones Held by Duty Personnel

Management Mobile Numbers: -

 Neil Rowbotham
 07770 858768
 Ian Walker
 07766 775427

 Mick Turrell
 07473198366
 Mick Warman
 07767341281

Karl Dixon 07828710144

B) <u>EMERGENCY SERVICES</u>

- Fire Brigade/Emergency Services 999
- Grimsby District Hospital, Scartho Road, Grimsby 01472 874111
- Police (Non Emergency) Phone No 101

C) <u>UTILITY SERVICES</u>

- WATER - ABP.

Immingham Dock Tel. 01469 570503 (24-hour service)

- ELECTRICITY - TOTAL GAS & POWER

Bridge Gate 55-57 High Street Redhill Tel 01737 275773

GAS - GAZPROM

5th Floor Bauhaus 27 Quay Street Manchester Tel 0845 230 0011

D) <u>STATUTORY AUTHORITIES</u>

- NORTH EAST LINCOLNSHIRE COUNCIL,

Town Hall Square Grimsby North East Lincs Tel 01472 313131

ENVIRONMENT AGENCY,

Ceres House 2 Searby Road Lincoln LN2 4DT

Contact: Howard Goulbourne Tel: (01522) 513100

Fax: (01522) 546544

HEALTH AND SAFETY EXECUTIVE (HSE)

Online contact via HSE website

E) **SUPPLIERS**

Gas Oil Supplies

- WATSON FUELS BUTLER FUELS

Nottingham Road Lock Lane Fairfield Ind Est Castleford

Louth Tel 01507 606498 West Yorks Tel 08457 240241

Caustic Soda

- BRENNTAG

Oxford Rd Gomersal West Yorkshire Tel 01274 850300

Lubricating Oils

FUCHS LUBRICANTS LTD

New Century Street STOKE ON TRENT 08701 200400 (24hr)

Molasses Supplies

- INTERMOL

King George Dock, HULL Tel. 01482 786945

Person on call Mobile - 07714 960996

Sulphuric Acid

BRENNTAG

Albion House Rawdon Park Leeds Tel 0113 3879200

UNITED MOLASSES

King George Dock, HULL

Tel. 01482 375241

Outside normal working hours and in the absence of key personnel ring duty engineer for local contractors.

SECTION 8 CIVIL DISTURBANCE, BOMB THREAT, ETC.

8.1 CIVIL DISTURBANCE

In the event of a CIVIL DISTURBANCE or DEMONSTRATION taking place adjacent to the works and if there is a possible threat to the safety of employees or property, the following action should be taken:-

Close and lock all entrances to the works.

Contact the POLICE and advise them of the situation.

STOP all operations, close down all tanks, isolate electrics, STOP vehicle movements.

Ensure FIRE equipment is ready for use.

Initiate incident report procedure.

Maintain contact with POLICE as necessary.

8.2 BOMB THREAT

Although the majority of telephone calls alleging the planting of explosive devices are "false alarms" the possibility of a genuine call cannot be ignored.

Should a warning be received the following action must be taken:-

Person receiving call should obtain as much information as possible to identify:-

- a) Type, location and time of detonation of the device.
- b) Any information that could identify the caller i.e. male/female, accent etc.

HALT all operations, close down all tanks, isolate electrics, stop all vehicle movements.

Contact the POLICE and advise them of the threat.

Depending on the nature of the threat, the MANAGER or their deputy will institute and carry out a systematic search of all areas of the works to establish the LOCATION of the DEVICE. Anything of a suspicious nature should be noted but MUST NOT BE TOUCHED OR APPROACHED.

Should anything of a suspicious nature be found. Further contact will be made with the POLICE requesting additional assistance i.e. BOMB DISPOSAL SQUAD.

Immingham Briquetting Works should be evacuated until advice is received from POLICE OR BOMB DISPOSAL SQUAD that the situation has been made safe.

Initiate incident report procedure.

8.3 LETTER BOMBS

IDENTIFICATION

The following points may be of assistance in identifying a LETTER BOMB or suspicious package.

- (a) Envelopes used have been any colour and size.
- (b) Thickness of envelopes normally at least 3/10".
- (c) Weight of around 3 ozs and above and might be uneven causing imbalance.
- (d) Weight might be excessive in relation to the size of the envelope.
- (e) An aroma of marzipan or almonds may be present.
- (f) The envelope may be punctured with small holes.
- (g) Envelope could show signs of staining.
- (h) The envelope may be stiffer than usual.

ACTION

- (a) Do not panic but warn other personnel in the area of your suspicion.
- (b) Leave package.
- (c) Advise the Manager.
- (d) If the Manager agrees the package is suspicious and may be a bomb threat, they should evacuate area and contact local POLICE STATION for advice and assistance.
- (e) Make available fire extinguishers in case required.
- (f) If possible "screen" the package, e.g. sand bags.

DANGERS

If a suspicious envelope/package is received, remember it will have survived fairly rough treatment and provided it is treated carefully is likely to remain "SAFE".

DO NOT

DO NOT attempt to open or explore the package.

DO NOT tamper with any wire or other protrusions.

DO NOT drop it or throw it.

DO NOT place it in water or any other liquid.

<u>DO</u>

DO Report situation to works management.

SECTION 9 <u>COMMUNICATIONS WITH THE MEDIA</u>

Should a major incident occur at Immingham Briquetting Works it is inevitable that the news media will be pressing for information.

NO INFORMATION WHATSOEVER SHOULD BE GIVEN TO THE MEDIA BY ANY PERSON ON SITE.

The Incident Report Procedure will ensure that information is released in a controlled manner.

As and when new developments occur they should be communicated to the Public Relations department. The objective is to keep the media as fully informed as possible with the <u>facts</u> in a controlled manner and without compromising the company's interests.

SECTION 10 CPL INDUSTRIES INCIDENT REPORTING PROCEDURE

10.1 The Incident Report Procedure will ensure that all incidents are reported to the Operations Director and Safety Manager as soon as the situation is under control. The report to give an accurate assessment of damage and/or injuries and indicate if any potential danger exists towards the locality.

The Incident Report Procedure relies on information passed down a pyramid with each person involved contacting the next in line.

- 10.2 Most incidents are likely to come within the scope of "The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995"
- 10.3 Should the incident result in an unauthorised release to the atmosphere as defined by our Authorisation under IPPC the notification procedure is shown overleaf.
- 10.4 On receipt of an incident report from the works, the Safety Manager will advise the HEALTH & SAFETY EXECUTIVE.

SECTION 11 FLOOD SCENARIO

Flood is a likely occurrence due to the location of Immingham Docks. A map denoting the location of the flood plain is attached in appendix VI. Although the Works is located at a raised elevation and therefore likely to avoid being flooded, the surrounding areas could make turn the Works into an island. For this reason a plan has been prepared.

Should an individual wish to receive the updates:

www.environment-agency.gov.uk/homeandleisure/floods

In case of emergencies contact Floodline on 0845 988 1188

Preparing for a potential flood

Senior Management on the site receives Flood Warnings from the MET Office. Should a weather warning be issued which concerns our Local Area the following plans will be initiated

- Ensure there are provisions of sand bags or other equipment to protect critical areas)e.g. computer control room
- Ensure all staff are briefed on the situation and encourage them to plan alternative routes to work
- Issue "general flood guidance" (Appendix VII) for all staff with regard to critical equipment and personal safety
- Contact HQ to inform of the potential situation and prepare contingency plans for stock etc in accordance with business needs

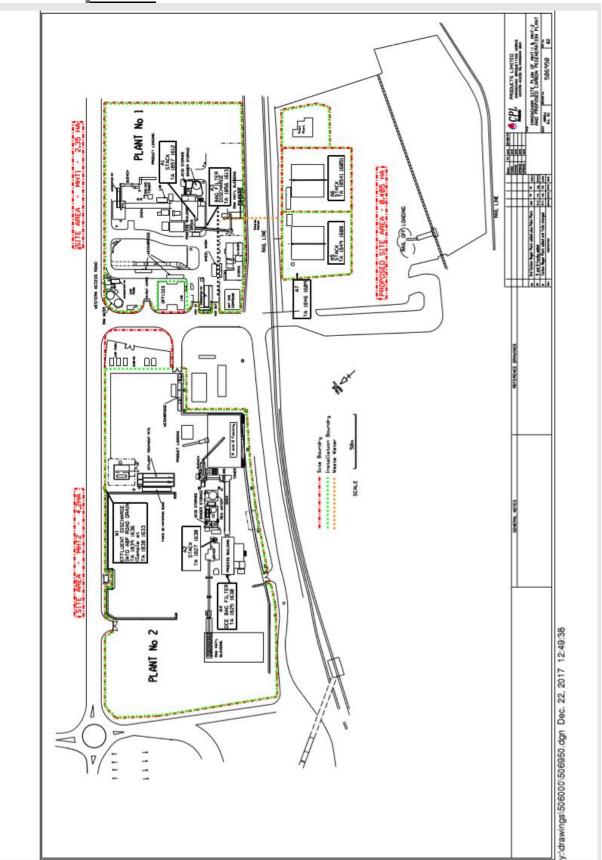
Dealing with an unexpected (Flash) flood

The ownership of the incident will follow the guidelines indicated in Section 2/3

The contact guidelines will follow as per Section 7

- Protect all critical equipment wherever possible including shutting off all utilities when instructed to do so by the incident controller
- Ensure all staff are briefed on the situation and encourage them to use alternative routes to/from work
- Contact all staff not currently working indicating the severity of the situation and their requirements to attend work (decided at the time)
- Issue "general flood guidance" (Appendix VII) for all staff with regard to critical equipment and personal safety
- Contact HQ to inform of the potential situation and prepare contingencies' for stock etc in accordance with business needs

APPENDIX I_Site Plan



APPENDIX II

Spillage Action Plans

The following pages give spill clean-up actions for the following hazardous materials used on site:-

Sodium hydroxide

Sulphuric acid

Oils including Bevaloid Antifoam

Molasses

Resin

Surfactant

In general terms the philosophy is:-

- 1 Evaluate the risks associated with the material
- 2 Ensure that the necessary protective equipment is used
- 3 Consider the environmental implications of an escape of the material
- 4 Stop the leak if it is safe to do so
- 5 Prevent the material from entering the drains or reaching the effluent system using cured fines or duff to soak up the material
- Store the contaminated fines under cover to prevent leaching by rainfall and arrange safe disposal
- 7 Contain the material on site by shutting down the effluent system
- 8 Contact the Site Management for specialist advice especially in the event of a major spillage.

Detailed instructions for dealing with escapes of the substances at the top of this page follow. For substances not referred to above, the general philosophy should be followed. Please contact the senior chemists if significant quantities of additional types of hazardous substances are likely to be brought on site so that specific spill action plans can be issued.

Action Plan for Sodium Hydroxide Spillage

1 Location of Sodium Hydroxide and Normal System for Use

Sodium hydroxide solution (32% by weight) is stored in IBCs within a bund for pH correction of the effluent prior to discharge.

2 COSHH Risk Phrases for Sodium Hydroxide

Corrosive causes severe burns. Avoid contact with skin and eyes.

3 Protective Equipment

In addition to or instead of normal protective equipment:-

Chemical suit Full face visor Wellington boots PVC gauntlets

4 Environmental Impact Assessment

Sodium hydroxide is a corrosive alkali and its uncontrolled discharge via the effluent system will result in the pH of the effluent increasing above the consent limit.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the sodium hydroxide from entering the drains or reaching the effluent system using cured fines or duff to soak up the material.

The mixture should be disposed of into pit 1 of the effluent system but at a steady rate depending on the quantity of sodium hydroxide spilled and fines used so that the pH of the effluent does not exceed consent. Typically do not dispose of more than the equivalent volume of sodium hydroxide in an IBC over a period of less than 3 days or longer in dry weather.

If a significant amount of sodium hydroxide has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump.

6 Further Advice

Action Plan for Oil or Bevaloid Antifoam Spillage

1 Location of Oils and Normal System for Use

Oils are contained in purpose built stores and bunded tanks, and used as fuels and lubricants for plant and vehicles.

2 COSHH Risk Phrases for Oils

Avoid contact with skin and eyes. Avoid inhalation of vapour.

3 Protective Equipment

In addition to or instead of normal protective equipment:-

PVC gloves or gauntlets Chemical goggles.

4 Environmental Impact Assessment

Oil floats on water and must not be discharged via the effluent system. Oil films prevent oxygen from the atmosphere dissolving in water to sustain aquatic life. 1 litre of oil can create a "rainbow" film on an area of water the size of a football pitch.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the oil from entering the drains or reaching the effluent system using oil absorbing granules for localised spillages. Cured fines or duff retain oils within their micro porous structure and can be used to soak up the material.

The mixture should be disposed of onto the contaminated fines stockpile.

If a significant amount of oil has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump. Oil absorbent pillows are available from stores.

6 Further Advice

Action Plan for Molasses Spillage

1 Location of Molasses and Normal System for Use

Molasses is stored in purpose built tanks within a bund and is used in conjunction with phosphoric acid and sulphuric acid as binder.

2 COSHH Risk Phrases for Molasses

None known.

3 Protective Equipment

In addition to or instead of normal protective equipment:-

None required.

4 Environmental Impact Assessment

Molasses is a natural product produced from the refining of cane sugar, its uncontrolled discharge via the effluent system will result in the consumption of dissolved oxygen from a waterway and consequential effect on the aquatic life.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the molasses from entering the drains or reaching the effluent system using cured fines or duff to soak up the material.

The mixture should be retained under cover to prevent leaching by rainfall and disposed of by reprocessing via the impregnated material system on MHT2.

Dilute molasses solutions such as occur in the molasses tanks bunds after heavy rain may be transferred using the on site gulper into the old paint tank bund for disposal as a Special Waste.

If a significant amount of molasses has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump.

6 Further Advice

Action Plan for Sulphuric Acid Spillage

1 Location of Sulphuric Acid and Normal System for Use

Sulphuric acid (77% by weight) is stored in purpose built tanks within a bund and is used in conjunction with molasses as a binder.

2 COSHH Risk Phrases for Sulphuric Acid

Corrosive causes burns.

Avoid contact with skin and eyes.

Avoid ingestion and inhalation of mist.

Avoid adding water to sulphuric acid.

3 Protective Equipment

In addition to or instead of normal protective equipment:-

Chemical suit Full face visor Wellington boots PVC gauntlets

4 <u>Environmental Impact Assessment</u>

Sulphuric acid is a corrosive liquid and its uncontrolled discharge via the effluent system will result in the pH of the effluent decreasing below the consent limit. Furthermore, phosphates are biological nutrients and can cause rapid multiplication of algae in waterways and consumption of dissolved oxygen.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the sulphuric acid from entering the drains or reaching the effluent system using cured fines or duff to soak up the material.

Keep unnecessary people away, isolate hazard area and deny entry

The mixture should be retained under cover to prevent leaching by rainfall and disposed of as a Special Waste by an approved contractor.

If a significant amount of sulphuric acid has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump.

6 Further Advice

Action Plan for Resin Spillage

1 Location of Resin and Normal System for Use

Resin is stored in tank B13 on MHT2 within a bund and is used as binder.

2 COSHH Risk Phrases for Resin

Harmful

Corrosive to skin and eyes

3 Protective Equipment

In addition to normal protective equipment:-

Nitrile rubber gauntlets.

Full face visor.

4 Environmental Impact Assessment

Resin is a partially reacted mixture of phenol and formaldehyde, its uncontrolled discharge via the effluent system will result in the consumption of dissolved oxygen from a waterway and consequential effect on the aquatic life.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the resin from entering the drains or reaching the effluent system using cured fines or duff to soak up the material.

The mixture should be retained under cover to prevent leaching by rainfall and disposed of by reprocessing via the impregnated material system on MHT2.

Dilute resin solutions such as occur in the tank bund after heavy rain must be disposed of as a Special Waste.

If a significant amount of resin has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump.

6 Further Advice

Action Plan for Surfactant Spillage

1 Location of Surfactant and Normal System for Use

Surfactant is stored in IBCs and is used in at the quench for final product polishing.

2 COSHH Risk Phrases for Surfactant

Avoid contact with skin and eyes.

3 <u>Protective Equipment</u>

In addition to or instead of normal protective equipment:-

None required.

4 Environmental Impact Assessment

Surfactants must not be discharged via the effluent system in an uncontrolled manner. Surfactants affect the surface tension of water which is essential for fish to breath through their gills. Furthermore, surfactants are biodegradable and will consume the dissolved oxygen from a waterway.

5 Spill Clean-Up Action

Stop the leak/spillage if it is safe to do so.

Prevent the surfactant from entering the drains or reaching the effluent system using cured fines or duff to soak up the material.

The mixture should be retained under cover to prevent leaching by rainfall and disposed of as a Special Waste.

If a significant amount of surfactant has reached the effluent system, it should be contained by stopping the treatment and discharge systems. The inlet to the effluent system should also be stopped, including the MHT1 transfer pump.

6 <u>Further Advice</u>

APPENDIX III

First Aid

List of First Aiders as of June 2022

Ian Hoggins	Colin Smithson
Steven Farrell	Camila Tyler
Andrew Shotbolt	Kieran Wressell
Patrick Meenaghan	Luke Markham
Liam Gralton	Paul Howden
John Martin	Wayne Groce
Craig Daniel	Mark Clark
Christian Cherry	Andrew Humble
David Reed.	Craig Love

Location of First Aid Kits

	Kit 1	Kit 2	Kit 3	Kit 4	Kit 6	Kit 7	Kit 8	Kit 10
	MHT1 -	MHT2 -		Weigh	Work	Work	Work	
Location	Control	Control	Stores	bridge	shop	shop	shop	Lab
Plasters	Various	Various	Various	Various	Various	Various	Various	Various
Wipes	Various	Various	Various	Various	Various	Various	Various	Various
			1 pack					
Gloves	1 pack (L)	1 pack (L)	(L)	3 packs				
Bandage M	6	6	6	9	12	12	12	12
Bandage L	2	2	2	3	3	3	3	3
Bandage								
Eye	2	2	2	6	6	6	6	6
Burn								
Treatment	2	2	2	4				
Scissors	1	1	1	1	1	1	1	1
Triangular								
Bandage	3	3	3	8	8	8	8	8
Таре	1	1	1	1	1	1	1	1
Sterile Eye								
Irrigation	2	2	2	5	5	5	5	5
Foil								
Blankets	2	2	2	1	1	1	1	1
Pins	Various	Various	Various	Various	Various	Various	Various	Various
Checked	Dec-20	Dec-20	Dec-20	Dec-20	Dec-20	Dec-20	Dec-20	Dec-20
Next Due	Dec-21	Dec-21	Dec-21	Dec-21	Dec-21	Dec-21	Dec-21	Dec-21

There is also a First Aid Room with additional resources located at the Main Site Office Block

APPENDIX IV

FIRE EXTINGUISHER LISTING

AREA: MHT 1

EQUIP No.	LOCATION	Wgt Kg	EQUIP TYPE	ACTION
1AA	LEVEL 3 01.05 TOP		Powder	exch 10/08
1A	LEVEL 3 FIRE ESCAPE		Powder	exch 10/08
2A	LEVEL 3 DRIER SIDE		Powder	exch 09/08
3A	LEVEL 3 TOP OF STAIRS		Powder	exch 10/08
4A	LEVEL 2 FIRE ESC DOOR		Powder	exch10/08
5A	LEVEL 2 MIXER		Powder	exch 10/08
6A	LEVEL 2 DRIER SIDE		Powder	exch 10/08
7A	LEVEL 1C DRIER SIDE		Powder	exch 10/08
8A	LEVEL 1A DRIER SIDE		Powder	exch 10/08
9A	TAIL END 09.09		Powder	exch 10/08
10A	LEVEL 1 FIRE ESCAPE (PRESS)		Powder	exch 10/06
11A	ADJACENT PRESS LEVEL1		Powder	exch 10/08
12A	CONTROL ROOM	5	CO2	exch 09/03
13A	PERMIT OFFICE	5	CO2	exch 09/03
13AA	5s temp CANTEEN		Powder	exch 09/03
14A	MCC FIRE ESCAPE	5	Foam	exch 10/08
15A	MCC FIRE ESCAPE		Powder	exch 10/08
16A	MCC	2	CO2	exch 09/03
17A	MCC	5	CO2	exch 10/04
18A	DRIER BURNER		Powder	exch 10/08
20A	LEVEL OB DRIER SIDE		Powder	exch 10/08
21A	LEVEL OB EXIT (DIESEL TANK)		Powder	exch 10/08
23A	GROUND FLOOR DRIER STAIRS		Powder	exch 10/08
24A	GROUND FLOOR DRIER STAIRS		Powder	exch 10/08
26A	TRANSFORMER ROOM (DOOR)	5	CO2	exch 09/03
27A	LAWRENCE SCOTT ROOM	5	CO2	exch 09/03
28A	TRANSFORMER ROOM (DOOR)	5	CO2	exch 09/03
29A	11KV SWITCH ROOM DOOR	5	CO2	exch 09/03
30A	11KV SWITCH ROOM DOOR	5	CO2	exch 09/03
31A	CRUSH CABIN		Powder	exch 10/09
32A	PREP LAB	2	CO2	exch 05/11
34A	PAINT DIP VOLVO PIT		Powder	exch 09/07
35A	GROUND FLOOR FIRE ESCAPE O/SIDE		Powder	exch 10/08
36A	SHIFT WORKSHOP		Powder	exch 11/11

FIRE EXTINGUISHER LISTING

AREA: MHT 2

EQUIP No.	LOCATION	Wgt Kg	EQUIP TYPE	ACTION
0B	MCC Room		POWDER	exch 10/08
1B	MCC Room	5	C02	exch 09/03
2B	Process Building Ground Floor		POWDER	exch 11/11
3B	Process Building Ground Floor		POWDER	exch 11/11
4B	Press Floor		POWDER	exch 10/08
5B	Upper MCC		POWDER	exch 10/08
6B	Outside Control room		POWDER	exch 11/11
7B	Upper MCC		POWDER	exch 10/08
8B	Control Room		C02	exch 09/05
9B	Upper MCC	5	C02	exch 09/03
10B	2nd Floor Near H13		POWDER	exch 10/08
11B	2nd Floor Near H13		POWDER	exch 10/10
12B	3rd Floor Near Mixer		POWDER	exch 10/08
13B	3rd Floor Near Mixer		POWDER	exch 09/07
14B	Top Floor Process Building		POWDER	exch 10/08
15B	Top Floor Process Building		POWDER	exch 05/11
17B	Drier 2nd Floor		POWDER	exch 10/06
18B	Pent House H04		POWDER	exch 10/08
20B	Aga Room		POWDER	exch 05/11
21B	MCC 3 Dis (brown cabin)	5	C02	exch 09/03
22B	Binder Side of Oven		POWDER	exch 10/08
23B	LPG		POWDER	exch 10/08
24B	LPG		POWDER	exch 10/06
25B	Old Plant Air Compressor House (V17)		POWDER	exch 10/10
26B	Shift Workshop		POWDER	exch 10/06
27B	Instrument compressor house (V24)		POWDER	exch 10/06
28B	Portacabin Compressor House (V23)		POWDER	exch 10/06

FIRE EXTINGUISHER LISTING

AREA: OFFICE

EQUIP No.	LOCATION	Wgt Kg	EQUIP TYPE	ACTION
1C	Near LAB Office Door	5	C02	exch 09/03
2C	Far End of Lab	5	C02	exch 09/03
3C	Near Double Doors	5	C02	exch 10/06
4C	Near Double Doors		POWDER	exch 10/08
5C	Near Double Doors Canteen		POWDER	exch 10/06
6C	Dirty Locker Room		WATER	exch 10/10
2S	Clean Locker Room		POWDER	exch 10/06
8C	Opposite Andy's office		FOAM	exch 10/08
9C	Opposite Andy's office	2	C02	exch 09/03
10C	Near Managers Office	2	C02	exch 09/01
11C	Main Reception	2	C02	exch 09/03
12C	Main Reception		FOAM	exch 10/08
13C	Drivers Weighbridge		POWDER	exch 10/06
14C	Under Stairs	2	C02	exch 09/03
15C	Under Stairs		FOAM	exch 10/08
16C	Bottom of Stairs	5	C02	exch 09/03
17C	Outside Ladies Toilet	5	C02	exch 09/03
18C	Top of Stairs		FOAM	exch 10/08
19C	Top of Stairs	2	C02	exch 09/03
21C	Stores Office	2	C02	exch 09/03
22C	Ian/Brians Office	2	C02	exch 09/03
23C	Stores		POWDER	exch 10/08
24C	Stores	6	FOAM	exch 10/08
25C	Stores		POWDER	exch 10/08
26C	Instrument Shop		C02	exch 10/04
27C	Electric Workshop	2	C02	exch 10/10
28C	Workshop	2	C02	exch 09/07
29C	Workshop		POWDER	exch 10/08
30C	Workshop	2	C02	exch 09/03
31C	First Aid Room		POWDER exch 10	
32C	Security Hut		POWDER	exch 10/09
33C	Security Hut		POWDER	exch 10/09
34C	New Workshop	5	C02	exch 10/04
35C	New Workshop	6	POWDER	exch 10/08
36C	New Workshop		POWDER	exch 10/08

APPENDIX V

FIRE PREVENTION AND CONTROL

To Raise Fire Alarm

The person who discovers a fire requiring assistance will immediately raise the alarm by the most effective means either by breaking one of the Fire Alarm break glasses which strategically placed around the site or contacting the Shift Manager or Shift Leader by radio who will call decide upon the appropriate response (See Emergency Plan).

Activating a break glass causes locally based sounders to alarm and also triggers an alarm call in the Shift Managers Office. A full plant personnel on site listing via the Timeclock system is also generated.

Prevention

"Fire Prevention" is the key objective. The following will go a long way towards preventing fires:

- 1. Good Housekeeping. Rubbish, paper, oily rags, etc. can ignite from hot equipment and may also spontaneously ignite.
- Ensure that all hot work is carried out under a fully authorised "General work" Permit and that all conditions on this permit are met.
- 3. Prevent means of ignition coming into contact with a fuel/air mixture; viz. overheating mechanical equipment, static electricity ensure adequate bonding, accumulation of material which spontaneously ignites, smoking in unauthorised area, hot work.

Fire Control

After a fire has been discovered the fire alarm must be raised and the appropriate response determined and put into action. The Works policy (in line with Fire Brigade recommendations) is that large fire control is a specialised skill best left to professionals. However, small local fires can be controlled and larger fires kept from becoming life-threatening using the fire control equipment on site. There are two types of equipment; hand held fire extinguishers and fire hoses and nozzles.

The following pages describe their use and is followed by a discussion of the basics of combustion.

Fire Extinguishers

Throughout all areas of the Works, hand-held fire extinguishers are located in accessible positions. Should you have need to use one of these extinguishers the following is a description of what extinguisher to use where.

Five types of hand-held fire extinguisher are provided and these are colour coded for easy identification.

1. <u>Dry Powder Extinguisher – Red with Blue panel</u>

Two types of powder are used on the Works, one is based on Sodium Bicarbonate and the other which is much more efficient is a recently developed product with the trade name Monnex. On operating this type of extinguisher, an internal cartridge of CO2 is punctured and the powder is expelled through the hand-held nozzle by the pressure of the released Carbon Dioxide. It is imperative that this type of extinguisher is completely discharged after use due to the release of the propellant CO2. There is a high failure rate of extinguishers which have been only partly discharged.

The powder is a non-conductor of electricity and can be used safely on fires involving live electrical equipment. It has very poor cooling properties and when used to extinguish fires involving wood, paper, etc., it may be necessary to finally quench the embers with water. It is particularly effective in "knocking down" the flames of fires involving flammable liquids but due to its lack of cooling it affords no protection against re-ignition

2. <u>Water Extinguisher - Coloured Red with red panel</u>

This type of extinguisher contains approximately 9 litres of water which, when operated, is expelled through the hand-held nozzle by Nitrogen pressure. This type of extinguisher may be found in offices and is suitable for use on paper, wood, clothing, etc. It MUST NOT be used on electrical equipment.

3. CO2 Extinguisher - Coloured Red with black panel

Contains liquified Carbon Dioxide (CO2) which, when released by operating a trigger, discharges from the extinguisher as a vapour. CO2 acts as an extinguishant by excluding Oxygen from the fire and therefore is most effective where it will not be rapidly diffused, i.e. indoors. A portable hand-held extinguisher can be used safely in all but the smallest of enclosed spaces, but, as CO2 is an asphyxiant, personnel must take due care of their own respiratory needs when using this type of equipment.

CO2 is a non-conductor of electricity and is clean in application which makes it particularly suitable for use on fires in electrical equipment.

4. Foam Extinguisher – Red with a cream coloured panel

Contains A.F.F.F. (Aqueous Film Forming Foam) which is projected on to a fire in a fine mist spray. The extinguisher is pressurised by the user puncturing a CO2 filled cartridge which expels the foam solution through a hand-held hose and spray nozzle. This type of extinguisher is intended for multi-purpose use and is generally found inside buildings. It can be used effectively on all types of fires, i.e. wood, paper, textiles, liquids, gas containers etc. It is also safe for use on electrical fires.

Check the types of extinguisher to be found in your normal work area. Appendix A gives full listing of extinguisher type and location.

Ensure that you know how to operate them, don't wait until an emergency arises.

Any extinguishers which have been discharged must be reported to the Engineering Manager and returned to outside the Engineers Office. Spare extinguishers of all types are kept in the Office Block.

The Basic Principles of Combustion

What is Fire?

Combustion may be defined as a chemical reaction accompanies by the evolution of light and heat.

Three basic requirements are necessary before combustion can occur, viz:-

- 1. a combustible substance
- 2. heat
- 3. oxygen (air is 21% O2 approx.)

When a substance that will burn is heated to a certain critical temperature called its "ignition temperature", it will ignite and continue to burn as long as there is fuel, the proper temperature and a supply of oxygen.

Knowledge of the chemical reaction, illustrated by the triangle, forms the basis for knowing how to extinguish fire. Heat can be taken away by cooling, oxygen can be taken

away by excluding the air, fuel can be removed, thus the chemical reaction can be stopped by inhibiting the rapid oxidisation of the fuel.

Cooling

In order to extinguish a fire by cooling it is only necessary to absorb a small portion of the total heat being evolved by the fire. The most common and practical agent is water applied in the form of a solid stream, finely divided spray or incorporated in foam.

Removing Fuel

Taking the fuel away from a fire can be difficult and dangerous, but there are exceptions. Flammable liquid storage tanks can have their contents pumped to an isolated empty tank in case of fire. When flammable gases, as they are flowing from a pipe, or liquids leaking from a faulty flange catch fire the fire will go out if the fuel supply is shut off.

Limiting Oxygen

Excluding air (Oxygen) from a fire can be accomplished through smothering, by covering the burning area with an asbestos blanket, mechanical or chemical foam, or even throwing sand on the fire. Extinction of a fire by diluting the reactants, oxygen and fuel vapours, below the concentration necessary to support combustion is accomplished by blanketing the fire area with carbon dioxide or other non-combustible vaporising liquids.

CPL IMMINGHAM BRIQUETTING WORKS EMERGENCY PLAN				
Version Number	11 12	Last Reviewed Last Reviewed	03/06/2021 07/06/2023	
Reviewed by	Dave Dowie (Health & Safety Advisor)	Signed	07/06/2023	
Authorised by	Neil Rowbotham (Works Manager)	Signed		