



- o Exit the Bradfield Highway at York Street, turning right at Margaret Street, crossing over Clarence and Kent Streets, down Napoleon Street and right onto Hickson Road for left turn access into Gates 8a/b or Gate 5.

TMP REQUIREMENT 3 The routes shown in **Figure 4.1** shall be followed by all heavy vehicles requiring access to the site under the auspices of this TMP. No other routes shall be used without prior approval from RTA, City of Sydney Council or others as appropriate.

TMP REQUIREMENT 4 The York Street access from the Bradfield Highway is subject to tidal flow arrangements during peak periods. All truck drivers shall be instructed prior to departure as to the appropriate lane choice for access to York Street and Margaret Street.

TMP REQUIREMENT 5 RTA and Council typically impose peak period travel restrictions for construction activities. The contractor and/or the Applicant shall confirm the need for peak period access restrictions to the site prior to commencement of works. There may be implications for the duration of the work. There may be a need for off-site lay-bys for truck queuing.

The routes in **Figure 4.1** avoid access via streets in Millers Point or the CBD. Only short sections of Sussex, Napoleon Street, Kent Street, York Street and Margaret Street leading onto or off the Western Distributor and Bradfield Highway will be used. These are relatively busy streets and capable of accommodating heavy trucks and equipment.

Alternative routes to and from the site are very limited and considered to be more sensitive and less direct, such as streets through Millers Points or George Street via the Rocks.

As the trips will be using State and regional roads in addition to short sections of CBD fringe roads, and will only occur for a short period of time, the frequency is not considered to have any significant impact on the road network or amenity of the surrounding residents or businesses.

TMP REQUIREMENT 6 Vehicle movement within the site shall follow the established routes used for port operations as identified by existing signs and markings.

The existing boom and operable bollards at the gates will be used during demolition works and site security will be present 24/7 to ensure a safe and secure site.

Most State and Regional Roads in the and around the Sydney CBD are used for access by public transport (**Figure 4.2**).

However, all proposed truck access routes are designed to cater for large heavy vehicles. As shown in **Table 3.1**, truck volumes are low (5.5 to 7.9 trucks per hour two-way). Accordingly, there is little or no impact on bus services and bus operational requirements.

The image contains two maps of Sydney, Australia, showing bus routes and bus stops. The left map shows the Circular Quay area, including streets like Hickson Rd, Mill St, Argyle St, George St, and Pitt St. The right map shows the Wynyard area, including streets like Kent St, Gresham St, Spring St, Hunter St, and Macquarie St. Both maps include bus stop numbers and names, and a legend for bus routes.

Left Map: Circular Quay Area

- Streets:** Hickson Rd, Mill St, Argyle St, George St, Pitt St, Bridge St, Lofus St, Phillip St, Prince Albert Rd, Art Gallery Rd.
- Bus Stops:**
 - Millers Point:** 431, 433, 308, 432, 434
 - George St:** L40, 412, 413
 - King St Wharf:** 412, 413
 - Harrington St:** L39, L03, X04
 - Circular Quay:** X03, 426, 437, 443, 303, 428, 438, 470, 422, 435, L38, 502, 423, 436, 440, 504
 - Alfred St:** 443
 - Art Gallery:** 441
- Bus Routes:**
 - 339, 343, X39, X43:** Millers Point
 - 311, 326, 374, 392, 397, 323, 333, 376, 394, 399, 324, 371, 377, L94, 896, 325, 373, 389, 396, 832:** Alfred St
 - 303, 309, 310:** Circular Quay
 - 422, L23, 428, 423, 426, L28:** Buses running along dotted line
 - 441:** Art Gallery

Right Map: Wynyard Area

- Streets:** Kent St, Gresham St, Spring St, Hunter St, Macquarie St, Elizabeth St, Wynyard Rd, Art Gallery Rd.
- Bus Stops:**
 - Millers Point:** 339, 343, X39, X43
 - Gresham St:** 327, 391
 - Spring St:** 308, X09, X10
 - Alfred St:** 311, 326, 374, 392, 397, 323, 333, 376, 394, 399, 324, 371, 377, L94, 896, 325, 373, 389, 396, 832
 - Circular Quay:** 303, 309, 310
 - Art Gallery:** 441
- Bus Routes:**
 - 339, 343, X39, X43:** Millers Point
 - 311, 326, 374, 392, 397, 323, 333, 376, 394, 399, 324, 371, 377, L94, 896, 325, 373, 389, 396, 832:** Alfred St
 - 303, 309, 310:** Circular Quay
 - 422, L23, 428, 423, 426, L28:** Buses running along dotted line
 - 441:** Art Gallery



4.6 Pedestrian Safety

RTA pedestrian crash records for the five year period ending June 2005 show that two pedestrian crashes occurred on Hickson Road near Napoleon Street. Pedestrian crash densities increase further south along Sussex Street and further east along all CBD streets.

Without detailed study it is not possible to understand the cause of crashes and it is not appropriate to impose undue restrictions on the proposed demolition operations. There is, however, a need for monitoring.

It is noted that there is minimal pedestrian activity along Hickson Road adjacent to the site.

TMP REQUIREMENT 7 Prior to commencement of the proposed demolition works, the Applicant shall confirm with RTA, the Police and the City of Sydney any specific concerns about pedestrian conflicts with heavy vehicles along the proposed truck routes. The Applicant shall develop a suitable accident prevention program for any sites that may be identified, eg any of the Gates in use, the intersection of Hickson Road and Napoleon Street or the intersection of King Street and Sussex Street. Such a program could include the use of formally trained and licensed Traffic Controllers or other measures deemed appropriate (physical, educational, etc).

TMP REQUIREMENT 8 The Applicant or its contractor shall have in place an incident-recording and management plan for crashes, near crashes and other incidents for trucks used during the demolition works, both on public roads and within the works site. Many incidents may require immediate action.

4.7 Passenger Terminal Operations

At this stage is unclear when the passenger terminal will cease operation. It is noted, however, that a concrete barrier with a mesh-wire fence physically separates the passenger terminal from the Stage 1 demolition works elsewhere on the site. Also, Gates 8a/b are well separated from Gate 5 which will be used for Stage 1 demolition traffic access.



Even so, peak events at the terminal may create some short-term congestion, which is best avoided by the Stage 1 demolition works.

TMP REQUIREMENT 9 The Applicant or its contractor shall liaise with the Passenger Terminal Operator to obtain and update the terminal's event program and passenger ship arrival and departure dates. No Stage 1 demolition truck traffic shall access the site during noise-sensitive events at the terminal. Stage 1 demolition truck traffic shall be coordinated to minimise conflicts with traffic generated by passenger ship arrivals and departures. It may be necessary to temporarily store materials on-site and it may also be necessary to temporarily cease demolition works.

4.8 General Access Requirements

During the demolition process, the P+O and Patricks operations will have ceased completely, but two existing operations will continue to require access, viz:

- o Sydney Ports Harbour Control Centre Tower - several staff daily.
- o Infrequent passenger ship operations at Wharf No3 (near Shed No3) - timing and numbers are unknown.

TMP REQUIREMENT 10 The Applicant or its contractor shall provide separate access points for the Harbour Control Centre tower and any passenger ship operations at Wharf No3 via Gate 3. Alternatively, Gate 4b could be considered, noting that this probably requires temporary removal (blackout paint) of the painted median to allow right turn access to Hickson Road. The opening of the median at Gate 4b requires specific Council approvals. Direct liaison is required with Sydney Ports to seek their preferences.

TMP REQUIREMENT 11 There shall be no intersecting traffic movements between the two ongoing operations and the Stage 1 demolition works. It will be necessary to plan the demolition works at Shed No3 to avoid passenger ship operating periods.



5 Summary of TMP Requirements

Jamieson Foley Traffic & Transport Pty Ltd was engaged by the Sydney Harbour Foreshore Authority to prepare a Transport Management Plan (TMP) for the demolition works associated with the redevelopment of the Barangaroo site at East Darling Harbour, Sydney.

This TMP responds directly to the requirements set out in the draft Director-General's Requirements for the Environmental Assessment of Demolition Works - Barangaroo, Sydney (MP 07-0077), dated June 2007.

Table 5.1 summarises the TMP Requirements identified in the report.

Table 5.1 - Summary of TMP Requirements

TMP Requirement 1	The TMP shall be adjusted if any of the actual operations vary significantly from those assumed for the purposes of this report.
TMP Requirement 2	Where plant / vehicles require delivery to the site on oversize transporters, specific permits shall be obtained separately by the contractor or the operator.
TMP Requirement 3	The routes shown in Figure 4.1 shall be followed by all heavy vehicles requiring access to the site under the auspices of this TMP. No other routes shall be used without prior approval from RTA, City of Sydney Council or others as appropriate.
TMP Requirement 4	The York Street access from the Bradfield Highway is subject to tidal flow arrangements during peak periods. All truck drivers shall be instructed prior to departure as to the appropriate lane choice for access to York Street and Margaret Street.
TMP Requirement 5	RTA and Council typically impose peak period travel restrictions for construction activities. The contractor and/or the Applicant shall confirm the need for peak period access restrictions to the site prior to commencement of works. There may be implications for the duration of the work. There may be a need for off-site lay-bys for truck queuing.
TMP Requirement 6	Vehicle movement within the site shall follow the established routes used for port operations as identified by existing signs and markings.
TMP Requirement 7	Prior to commencement of the proposed demolition works, the Applicant shall confirm with RTA, the Police and the City of Sydney any specific concerns about pedestrian conflicts with heavy vehicles along the proposed truck routes. The Applicant shall develop a suitable accident prevention program for any sites that may be identified, eg any of the Gates in use, the intersection of Hickson Road and Napoleon Street or the intersection of King Street and Sussex Street. Such a program could include the use of formally trained and licensed Traffic Controllers or other measures deemed appropriate (physical, educational, etc).



TMP Requirement 8	The Applicant or its contractor shall have in place an incident-recording and management plan for crashes, near crashes and other incidents for trucks used during the demolition works, both on public roads and within the works site. Many incidents may require immediate action.
TMP Requirement 9	The Applicant or its contractor shall liaise with the Passenger Terminal Operator to obtain and update the terminal's event program and passenger ship arrival and departure dates. No Stage 1 demolition truck traffic shall access the site during noise-sensitive events at the terminal. Stage 1 demolition truck traffic shall be coordinated to minimise conflicts with traffic generated by passenger ship arrivals and departures. It may be necessary to temporarily store materials on-site and it may also be necessary to temporarily cease demolition works.
TMP Requirement 10	The Applicant or its contractor shall provide separate access points for the Harbour Control Centre tower and any passenger ship operations at Wharf No3 via Gate 3. Alternatively, Gate 4b could be considered, noting that this probably requires temporary removal (blackout paint) of the painted median to allow right turn access to Hickson Road. The opening of the median at Gate 4b requires specific Council approvals. Direct liaison is required with Sydney Ports to seek their preferences.
TMP Requirement 11	There shall be no intersecting traffic movements between the two ongoing operations and the Stage 1 demolition works. It will be necessary to plan the demolition works at Shed No3 to avoid passenger ship operating periods.

The proposed access points, routes into and out of the site, and the types and frequency of vehicle movements are considered appropriate for the site and its isolated location in the north-west sector of the CBD.

The likely traffic to be generated by the demolition works is considered reasonable and the impact on surrounding land uses and roads to be manageable.

The Foreshore Authority will instruct the contractor to investigate the feasibility of removing debris and materials for recycling by barge. However, the feasibility of this will depend on the ultimate destination of the material, the need for double handling of the material and local environmental and traffic conditions at the receiving harbour / barge unloading point.



AMENDMENT 1 - TRANSPORT OF HAZARDOUS GOODS



Amendment 1 Hazardous Goods Transport and Incident Management

The site contains a number hazardous goods as listed in **Appendix A**, including:

- o Asbestos in both bonded and friable form.
- o PCB or Polychlorinated Biphenyls.
- o Lead-Containing Paint.
- o Synthetic Mineral Fibre.

There are a number of regulations and guidelines to control and manage the transport of dangerous goods, including:

- o *NSW Protection of the Environment Operations Act 1997 (the Operations Act).*
- o *NSW Waste Minimisation and Management Act 1995 (the Waste Act).*
- o *NSW Waste Minimisation and Management Regulation 1996.*
- o Department of Environment and Conservation (NSW). *The Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-liquid Wastes.*
- o Department of Environment and Conservation (NSW). Various user guides on the transport of dangerous goods.
- o RTA. *Heavy Vehicle Drivers Handbook.*
- o Standards Australia. *Initial Emergency Response Guide (HB 76-2004).*
- o Standards Australia. *Selection and use of emergency procedure guides for the transport of dangerous goods (AS 2931-1999).*

The following comments from these documents are pertinent to the transport of hazardous goods from Barangaroo:



- o Depending on the classification of a non-liquid waste, the generator may need to use a licensed transporter and the waste may be able to be taken to some disposal facilities and not others.
- o If the waste is hazardous waste or industrial waste, the transporter must carry duly completed waste data forms about the consigned waste, and provide a copy of each to the waste facility or mobile waste processor to which the load is delivered.
- o Clause 29 of the Waste Regulation contains new provisions for asbestos waste, which apply to any activity that involves the transportation, collection, storage, or disposal of any type of asbestos waste, regardless of whether the activity is required to be licensed, including:
 - Any type of asbestos waste must not be transported unless it is conveyed in a covered leak-proof vehicle so as to prevent any spillage or dispersal of the waste.
 - If asbestos waste that is in the form of stabilised asbestos waste in bonded matrix is to be transported and the waste is not stored in a bag in accordance with the requirements for collection and storage, the waste must be wetted before it is transported.
 - Any vehicle used to transport any type of asbestos waste must be cleaned before leaving the landfill site at which the waste is disposed of, so as to ensure that all residual asbestos waste is removed from the vehicle.
- o **Appendix B** provides an extract from the RTA Heavy Drivers Manual with access restrictions for dangerous goods such as tunnels, which may affect the travel route from the site for some destinations. This must be managed by the Contractor and the Transporter.
- o Vehicles must be properly labelled. For bulk dangerous goods it should not have just a hazard warning diamond at the front and rear, but also other information as required by the EPA. This information is placed on the Emergency Information Panel and includes the name of the substance, United Nations (UN) identification number, emergency action code, emergency telephone number and the name and telephone number of the responsible company that can be contacted. The information should be shown on three Emergency Information Panels: one at the rear of the vehicle and one on each side.



- o Vehicles more than 13.9 tonnes GVM or GCM must be fitted with a vehicle monitoring device (such as an approved tachograph) which complies with RTA Vehicle Engineering Specification 531.
- o All drivers must keep the Emergency Procedures Guide (a 'product' card which gives a guide to the emergency procedures that apply to the particular hazardous substance which you are carrying) together with the Vehicle Fire Card - on or near the inside of either cabin door. Alternatively, it is permitted for drivers to carry the Initial Emergency Response Guide instead of carrying the product card and vehicle fire card as the guide provides similar information to the cards. An extract of the Standard is included in **Appendix C** where it concerns asbestos and PCBs. Lead paint and synthetic mineral fibres are not covered.
- o In the event of a crash the driver must:
 - Call the Police or Fire Brigade on 000.
 - Not touch spilled chemicals and avoid breathing fumes and dust wash off any chemicals with plenty of water if you are splashed.
 - Keep people away from the crash site.
 - Show the shipping documents and emergency procedure guide to the Police or Fire Brigade when they arrive.



APPENDIX A - HAZARDOUS WASTE TYPES PRESENT AT BARANGAROO



Hazardous Material	Building Component / Material	Form	Toxicity Characteristics
Asbestos	Roofing - Corrugated fibre cement sheet	Bonded	Asbestos is the fibrous form of mineral silicates belonging to the serpentine and amphibole groups of the rock-forming minerals, including amosite (brown asbestos), crocidolite (blue asbestos), chrysotile (white asbestos), tremolite, actinolite, anthophyllite or a mixture containing one or more of these.
	Galbestos Sheeting	Bonded	
	Electrical backing boards – Compressed tar	Bonded	Asbestos was historically utilised in a large variety of building materials where temperature or weather protection was required. Such products include compressed fibre cement sheeting, vermiculite insulation, pipe lagging, vinyl floor tiles and electrical backing boards. The use of asbestos in building materials began to be phased out in Australia in the late 1970s.
	Fire door core material	Friable	
	Expansion joint material	Bonded	
	Facia – asbestos cement sheet	Bonded	The health effects associated with asbestos exposure relate to the inhalation of airborne respirable asbestos fibres. In general, asbestos fibres cannot be released or become airborne in significant quantities unless the asbestos-containing material is disrupted, for example in the case of cutting asbestos-cement (AC) products with power saws, etc.
	Ceiling tiles - Asbestos cement sheet	Bonded	
	Veranda ceiling – Fibre cement sheet	Bonded	Asbestos fibers can enter the body after inhalation or oral exposures. Fibers which are deposited in the lung may be removed from the lung by mucociliary clearance or by macrophages, or they may be retained in the lungs. Numerous studies in humans have established that long-term inhalation of asbestos fibers causes chronic, progressive pneumoconiosis (asbestosis).
	Pebblecrete panels – Fibre cement sheet	Bonded	
	External wall panels – Fibre cement sheet	Bonded	Numerous epidemiologic studies have documented an increased incidence of lung cancer and pleural and peritoneal mesothelioma (a tumor involving the lining of the abdomen and chest) as a result of asbestos exposure. All major types of commercial asbestos such as chrysotile, amosite, and crocidolite have been found to produce asbestos-related cancer among workers occupationally exposed in mining and milling, in manufacturing, and in the use of the materials containing asbestos fibers. Asbestos-related cancer has also been identified, although less frequently, in individuals who had worked near the application or removal of asbestos material; in individuals residing in the vicinity of asbestos plants; and in individuals who had lived in the household of an asbestos worker.
	Cisterns – Compressed fibre cement sheet	Bonded	
	Vinyl floor tiles	Bonded	



Hazardous Material	Building Component / Material	Form	Toxicity Characteristics
Polychlorinated Biphenyls	Double and single tubed fluorescent lights	N/A	Polychlorinated Biphenyls (PCBs) are a group of synthetic organic compounds, which have historically been an important ingredient in many industrial products. PCBs are highly stable chemicals with good insulating properties, they do not degrade appreciably over time or with exposure to high temperatures, acids or alkalis. It is these properties that made PCBs attractive for use in electrical devices. PCBs have commonly been used as an insulating fluid inside transformers and capacitors. Capacitors and ballast resistors containing PCBs were installed in various types of equipment including fluorescent light fittings predominantly from the 1950s to the 1970s.
Lead-Containing Paint	Painted door frames	N/A	Lead carbonate (white lead) was once the principal white pigment in paints for domestic and public buildings. Paint with lead pigment was manufactured up until the late 1960s, and in 1969 the National Health and Medical Research Council's Uniform Paint Standard was amended to restrict the lead content in domestic paint. Many older Australian buildings still contain lead-based paint, even though it may be covered with layers of more recent paint. Lead-based paint was used mainly on exterior surfaces, and to a lesser degree on interior doors and door and window architraves, especially in undercoats and primers, where concentrations of up to 20 percent lead content were used. Interior walls were not commonly painted with paint containing white lead pigment, although some colours did contain red, orange and yellow lead pigments. Lead in any form is toxic to humans when ingested or inhaled, with repeated transmission of particles cumulating in lead poisoning. Lead paint removal poses two potential avenues of transmission. Firstly by inhalation or ingestion by workers and public in the vicinity of the works, and secondly by the deposition of particles on nearby footpaths, streets or soil where they may be resuspended, tracked into houses or buildings where it can be inhaled or ingested.



Hazardous Material	Building Component / Material	Form	Toxicity Characteristics
Synthetic Mineral Fibre	• Ceiling tiles • Insulation in ceiling space • Hot water heater insulation	N/A	Synthetic Mineral Fibres (SMF) is a group of amorphous substances, including Glasswool, Rockwool and Ceramic fibre that have been fiberised by mechanical means, such as spinning or blowing during manufacturing. SMFs are commonly found in false ceiling panels and insulation and are typically identified by visual observation or by Optical Microscope techniques. In the late 1980s the International Agency for Research on Cancer (IARC) evaluated certain SMF materials as being possibly carcinogenic to humans. The similarity in application and appearance to asbestos has resulted in some community concern regarding the health effects associated with exposure to SMF. Caution is required when handling SMF products in order to minimise disturbance of the materials and subsequent airborne SMF fibre levels. Where SMF materials are to be removed, suitable controls and appropriate personal protection are to be provided.



APPENDIX B - RTA HAZARDOUS GOODS ACCESS RESTRICTIONS



Vehicles carrying hazardous loads must not use the following streets and tunnels:

- o The tunnel on the Cahill Expressway beneath the Royal Botanic Gardens
- o The tunnel connecting the Cahill Expressway with Bradfield Highway
- o Bradfield Highway between the hours of 7 am and 9.30 am Monday to Saturday both days inclusive and between the hours of 4 pm and 6.30 pm Monday to Friday both days inclusive
- o The tunnel on General Holmes Drive beneath the extension of the north-south runway of Kingsford Smith Airport
- o The tunnel on Main Road Number 173 between Victoria Street and the extension of Kellett Avenue, Kings Cross
- o The tunnel on the M2 Motorway beneath Norfolk Road at North Epping
- o The Sydney Harbour Tunnel
- o The Eastern Distributor from the Art Gallery Road Bridge, Woolloomooloo to Link Road, Zetland (including Anzac Parade and Moore Park Road branches)



APPENDIX C - EXTRACT FROM AUSTRALIAN STANDARDS ON INITIAL EMERGENCY RESPONSE GUIDE



**GUIDE
47**

LOW TO MODERATE HAZARD SUBSTANCES

HAZARDS	
Fire or explosion	• May burn but do not ignite readily. • Runoff may pollute waterways. • Fire may produce irritating, poisonous and/or corrosive fumes. • Containers may explode when heated.
Health	• Inhalation or contact with substance may be harmful. • Inhalation of asbestos dust may damage the lungs. • Runoff from fire control or dilution water may pollute waterways. • Substances may be stored or transported hot – Contact with substance may result in severe burns.
PROTECTIVE CLOTHING	
	• Wear SCBA and structural firefighter's uniform.
PUBLIC SAFETY	
	• Spill or leak area should be isolated immediately for at least 10 m in all directions. • Keep unauthorized personnel away. • Keep upwind and to higher ground.
Evacuation	Fire • When a large quantity of this material is involved in a major fire, consider initial evacuation for 100 m in all directions.



**GUIDE
47**

LOW TO MODERATE HAZARD SUBSTANCES

EMERGENCY RESPONSE

Fire	Small fire • Use dry chemical, CO₂, water spray or foam. Large fire • Use water spray, fog or foam. • If safe to do so, move undamaged containers from fire area. • Cool containers with flooding quantities of water until well after fire is out. Fire involving tanks • Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank. • ALWAYS stay away from tank ends.
Spill or leak	• Do not touch or walk through spilled material. • Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. • Water spray may be used to knock down or divert vapour clouds. • Prevent dust cloud. • Avoid inhalation of asbestos dust. • SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
First aid	• Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult. • Remove contaminated clothing and shoes immediately. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet – Obtain immediate medical care. • Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

IN AN EMERGENCY, CALL 000

257



GUIDE
48

POLYCHLORINATED BIPHENYLS (PCBs)

HAZARDS

Fire or explosion	- May burn but will not ignite readily. - Fire may produce irritating, poisonous and/or corrosive fumes and gases.
Health	- Inhalation or contact with substance may be harmful. - Runoff from fire control or dilution water may pollute waterways.

PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 15 m in all directions.
- Keep unauthorized personnel away.
- Keep upwind.

Evacuation	Large spill - Consider initial downwind evacuation for at least 50 m. Fire - When any large container (including rail and road tankers) is involved in a fire, consider initial evacuation for 800 m in all directions.
------------	---



GUIDE
48

POLYCHLORINATED BIPHENYLS (PCBs)

EMERGENCY RESPONSE

Fire

Small fire

- Use dry chemical, CO₂ , water spray or foam.
- If safe to do so, move undamaged containers from fire area.

Large fire

- Use water spray, fog or foam.
- Cool containers with flooding quantities of water until well after fire is out.

Fire involving tanks

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Dam fire control water for later disposal.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so—Prevent entry into waterways, drains or confined areas.

Small spill

- Absorb with earth, sand or other non-combustible material and transfer to container.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

IN AN EMERGENCY, CALL 000

259