PILBARA PORTS AUTHORITY

PORT OF PORT HEDLAND – AMMONIUM NITRATE HANDLING PROCEDURE

A311873

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APPENDICES

1. DOCUMENT AMENDMENT TABLE

VERSION	PREPARED BY	DATE	AMENDMENT
1		10/07/2015	Review of Procedure and update in accordance with recent legislative changes.
2	Landside Administration Officer	01/09/2015	PPA re-formatting of document in line with updated document control procedure.
3	Landside Administration Officer	18/02/2016	Several minor changes to wording and formatting throughout the document
4	Landside Administration Officer	29/09/2016	Several minor changes to wording and formatting throughout the document
5	Landside Operations Manager	20/12/2017	Review of Procedure and minor wording changes for imports and exports.
6	Landside Operations Superintendent	17/12/2018	Updated procedure.
7	Landside Operations Superintendent	14/10/2020	Updated procedure
8	Landside Operations Superintendent	13/12/2020	Updated procedure
9		20/06/2022	Several minor changes to wording and formatting throughout the document

2. DISTRIBUTION LIST

RECIPIENT	ORGANISATION
General Manager – Terminal Operations	Pilbara Ports Authority
General Manager – Marine Operations	Pilbara Ports Authority
Harbour Master – Port Hedland	Pilbara Ports Authority
Deputy Harbour Master – Port Hedland	Pilbara Ports Authority
Landside Operations Manager	Pilbara Ports Authority
Landside Operations Superintendent East	Pilbara Ports Authority
Operations Superintendent – Qube	Qube Bulk
Regional Manager - Orica	Orica
Regional Manager – Dyno Nobel	Dyno Nobel
Maintenance Manager	Pilbara Ports Authority
Health & Safety Manager	Pilbara Ports Authority
Security Superintendent	Pilbara Ports Authority

3. OBJECTIVE

The purpose of this document is to control the risk of hazards and incidents relating to the handling of ammonium nitrate (UN 1942 and UN 2067 Class 5.1) at Port Hedland. This procedure sets out specific requirements which must be adhered to at various stages of the ammonium nitrate handling process.

4. SCOPE

This procedure applies to all port operations including port employees and other personnel involved in the ammonium nitrate handling process at the port of Port Hedland. The exclusion zone also applies to all other port users and vessels utilizing the port.

This procedure is only effective whilst a special berths declaration is in place and a vessel carrying ammonium nitrate is alongside the Special Berth.

5. BACKGROUND

Ammonium nitrate listed as UN 1942 and UN 2067 Class 5.1 in quantities exceeding 30 m/t can only be loaded or discharged at a Special Berth declared by the Chief Dangerous Goods Officer.

No.2 Berth has been identified for the purposes of handling ammonium nitrate at Port Hedland. Based upon the Ammonium Nitrate Handling Risk Assessment and a likely 30 hours berth utilisation the PPA has determined that the maximum quantity of ammonium nitrate which can be handled at Port Hedland on any one vessel shipment (import, transit and export inclusive) is 3,600 m/t.

Ammonium Nitrate in Transit. The maximum quantity of ammonium nitrate that can be carried on a vessel that is neither loaded or to be discharged at Port Hedland (i.e.: in transit) at a berth that is not a special berth is 1,030 tonnes.

Department of Mines Industry Regulation and Safety (D.M.I.R.S) Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 requires the following;

- The operator of the berth must ensure any handling of the explosion risk goods at the berth is completed as soon as practicable after the vessel berths at the berth or the goods arrive on the berth and
- The operator of the berth must ensure the vessel does not remain at the berth for any longer than is reasonably necessary to complete any handling of the explosion risk goods.

6. REQUIREMENTS FOR HANDLING AMMONIUM NITRATE

6.1 Pre-Arrival Requirements

6.1.1 UN Classification Certificate

Prior to the vessel departing from its last overseas port with Ammonium Nitrate import cargo, the PPA requires lodgement of a UN Classification Certificate detailing the UN dangerous goods classifications test results for

each shipment to verify that the product is indeed a Class 5.1 oxidising substance. (Refer to information required at Appendix 1).

Shipments of ammonium nitrate, that are manufactured within Australia, will have been subjected to a 2(a) Gap Test (IAW United Nations. Manual of Tests & Criteria, Revision 7.). The results of this test will remain extant for the entire batch and therefore only the one test result will be available. A new batch is generated annually and then subjected to the gap test. The PPA will retain a copy of this annual gap test for two years.

All shipments of ammonium nitrate, that are manufactured outside of Australia must have an individual gap test certificate and a certificate of analysis. The PPA will retain a copy of these certificates for two years.

6.1.2 Dangerous Goods Form

At least 5 days prior to the vessel arrival the cargo owner is to forward a "Dangerous Goods Form" to the PPA email group shipping@pilbaraports.com.au notifying that an ammonium nitrate shipment will be passing through the port and identifying the route to be taken :-

a) For imports, from the berth to the off-site storage destination (refer Appendix 6) or
b) For Exports, from the point of manufacture / off-site storage to the berth.
c) Refer Appendix 2 for a copy of the Multimodal D.G. Form.

6.1.3 DFES/WAPOL Notification

Local offices of DFES and WAPOL do not currently require advance notification of Ammonium Nitrate imports as they have advised that their response readiness is already at the highest level.

5.1.4 Aviation and Maritime Security (AMS)

The PPA Security Superintendent will notify the AMS WA State Office and coordinate any activities as required by the Port Security Plan.

6.1.5 Approval to Berth

The vessel must not berth without the written approval of the Harbour Master or approved PPA delegate. Approval is demonstrated by the inclusion of the vessel in the Shipping Program (as amended from time to time).

(a) Ammonium Nitrate Imports

At least 3 days prior to the vessel arrival the vessel Master is to forward to the PPA (manifests@pilbaraports.com.au) the following documents:

- A cargo manifest and stowage plan. Additionally, the PPA must receive confirmation that the quantity of ammonium nitrate, including transit cargo, does not exceed the Special Berth limits.
- A copy of the hold inspection report from the load port.
- Verification, in writing and prior to arrival at anchorage that the ammonium nitrate packaging design used in the shipment meets the IMDG code requirements.
- At least 24 hours prior to berthing the cargo owner is to forward to the PPA a "Dangerous Cargoes Request Permission" form (refer Appendix 3) which includes contact details of all parties involved in the ammonium nitrate handling operation.

(b) Ammonium Nitrate Exports

At least 3 days prior to the vessel arrival the vessel Master is to forward to the PPA (manifests@pilbaraports.com.au) the following documents:

- A proposed cargo stowage plan and confirmation that the quantity of ammonium nitrate, including transit cargo, does not exceed the Special Berth limits.
- Verification, in writing and prior to arrival at anchorage that the ammonium nitrate packaging design used in the shipment meets the IMDG code requirements.
  A hold inspection reports is to be provided to PPA Landside Operations prior to commencement of any loading activities.
- At least 24 hours prior to berthing the cargo owner is to forward to the PPA a "Dangerous Cargoes Request Permission" form (refer Appendix 3) which includes contact details of all parties involved in the ammonium nitrate handling operation.
- At least 24 hours prior to berthing the vessel master is to forward the completed "Port of Port Hedland Pre-Arrival Declaration". This declaration is to identify that the master has instigated a fire watch, ceased all hot works and has prepared fire fighting equipment 24 hours prior to arrival at the port.

6.2 Pre-Berthing Requirements

6.2.1 Cargo Brief

At least 24 hours prior to the scheduled berthing, a cargo briefing may be conducted during which, in addition to requirements stated later in this procedure, the following will also be confirmed:

- All imported cargo satisfies the legislative and/or statutory requirements of Government agencies.
- An advance trucking registration list has been sent to manifests@pilbaraports.com.au.
- Documentation to be used for truck entry and/or truck/cargo exit.

6.2.2 Wharf Preparation

- The Special Berth will be a restricted area during the handling of ammonium nitrate. It will be closed prior to the scheduled berthing time to allow for the setting up of signage, exclusion zones, firefighting equipment and the implementation of traffic management arrangements. PPA Landside Operations Team will determine a suitable timeframe for wharf closure which may be up to 6 hours prior to vessel alongside time.
- The wharf must be thoroughly cleaned and free from oil, combustible dust and debris prior to handling ammonium nitrate.
- Vehicles not directly involved in the cargo handling operation are not permitted on the special berth at any time.
- Safety signs and notices shall be displayed prominently in the area of operation.
- All persons working on the wharf are to have completed site-specific Dangerous Goods (DG) - Ammonium Nitrate Handling - induction training and be fully conversant with the requirements within the PPA Ammonium Nitrate Handling procedures and Stevedore Safe Work Method Statements. PPA “responsible persons” will have completed specific “DG by Sea” and “DG by Road” training courses.
- All persons working on the wharf are to be familiar with the exclusion zones, access requirements and emergency procedures, initial information exchanges are to be repeated at each shift change as required. (Refer Exclusion Zone and Traffic Management Plan at Appendix 4).
- A safety audit is to be undertaken by the stevedore shift manager and PPA representatives at least 2 hours prior to the vessel berthing. (Refer checklist at Appendix 8)

6.2.3 Incompatible Operations

- Vessels loading or discharging ammonium nitrate are not permitted to berth when there is a fuel tanker occupying either No.1 or No.3 Berths. Vessels discharging/loading ammonium nitrate are not to take bunkers whilst holds are open, cargo operations are being undertaken or the berth has not been fully cleared of all ammonium nitrate. Any requirement for bunkering is to be notified to the PPA prior to the vessel berthing and an appropriate time for same will be approved.

7. SAFETY AND FIRE FIGHTING EQUIPMENT

7.1 Equipment

The PPA has the following safety and firefighting equipment available at its disposal for use during ammonium nitrate handling activities:

- 4 x 30m (64mm diameter) fire hoses with BIC couplings and attachments. (DFES compatible) Hoses can be connected to any of 4 hydrants (each

with twin outlets) at the rear of the berth dependent on vessel position. Each hydrant provides 40 L/s (2400L/min) at 460kpa.

- 2 x mobile firefighting trailers. Each trailer has an output of 650- 700Kpa. Prior to the vessel's arrival, the firefighting trailers are to be positioned on the berth, connected to the hydrant, live tested and made ready for immediate use. Fire trailers are to be sited in the pre-surveyed points (identified by a red rectangle painted on the wharf deck), these points have been assessed as being the optimum position for maximum water coverage.
- Emergency eye wash station and shower tested prior to vessels arrival.
- Signage prohibiting the use of mobile phones when actively engaged in discharge operation and ignition sources. PPA spill bin & spill bins provided by receiver containing absorbent pads and booms.
- SDS to be available at each watchman/sentry position.
- Fire Water, the Port has a "firefighting" water storage capacity of 720kl ensuring 30 minutes of constant hydrant use. Should this water storage expire, a further 1,000kl of potable water is accessible. All firefighting equipment is maintained and tested on a minimum 12 monthly basis to ensure operational readiness.
- In addition to shore side firefighting capabilities the Port has access to 10 x firefighting tugboats which are equipped for sea side firefighting capabilities.

7.2 Fire Structure

Fires involving ammonium nitrate cannot be extinguished by oxygen deprivation, and attempts to smother fires with dry chemical, carbon dioxide or foam extinguishers will prove unsuccessful. Water is the most effective means of firefighting and must be applied promptly to keep it cool. (refer Appendix 9).

8. VESSEL REQUIREMENTS

The vessel Master is to confirm that the following requirements will be observed prior (24 hours) and during the vessel stay alongside the berth:

Prior to arrival alongside (24 hours)

- Inspections have been undertaken to ensure that there are no fires onboard,
- Firefighting equipment is run out and tested,
- No hot works are undertaken,
- The paint locker is closed.

Once alongside

- Vessel will berth starboard side alongside (head out) unless otherwise approved in writing by the Harbour Master.
- There is to be "no smoking" throughout the vessel except for the designated smoking area as approved by the vessels safety management system. This is normally an internal space and usually the mess.

- Engine maintenance or immobilisation is not permitted whilst the vessel is alongside the berth.
- Vessel must remain in a state of readiness to sail from the berth at short notice.
- Vessel firefighting facilities are to be kept running on idle throughout the handling operation with hoses able to access all parts of the vessel hold.
- Work in adjacent holds, hot work, storing or bunkering is not permitted while the holds containing ammonium nitrate are open.
- The ammonium nitrate is to be loaded or discharged as soon as possible after berthing with the vessel departing the berth as soon as possible after completion of cargo handling operations.
- A gangway watch must always be kept whilst the vessel is alongside.
- Vessel must display Flag “B” at all times when alongside the berth and a red light during the hours of darkness.
- Vessel deck must be clear of obstructions and combustibles.
- Vessel paint lockers and other such areas containing combustible stores are to be locked during handling of ammonium nitrate.

9. TIDE CONSTRAINTS

- Ammonium nitrate vessels are not tidally constrained and are to be able to sail immediately at any time day or night.
- The declared depth alongside Berth 2 is in excess of 13m CD and channel depth is in excess of 14 meters.

10. CARGO HANDLING & BERTH REQUIREMENTS

10.1 Safety and Security

- Ammonium nitrate is to be discharged to/from the vessel directly from/to trucks.
- Ammonium nitrate is not to be placed on the wharf at any time unless there is an immediate safety reason.
- There are to be no fuel tanker operations scheduled for either No.1 or No.3 Berth whilst the ammonium nitrate vessel is alongside No. 2 Berth.
- Fuel lines to all public berths must be completely drained and/or isolated.
- No hot work/repair work is to be conducted at the berth while holds containing ammonium nitrate are open or ammonium nitrate is on the wharf.
- Ammonium nitrate is not to be handled on excessively wet surfaces or during prolonged or heavy rain. Handling operations must be suspended during periods of rain or lightning.
- Signage will be erected, and exclusion zones demarcated prior to the vessel berthing at the special berth.

10.2 Responsible Persons

10.2.1 Port Representative

The PPA will ensure a representative who has successfully undertaken training in the movement of DG by road and sea is present for the entire operation and who will be responsible for;

- overseeing the entire operation,
- conducting a fire watch,
- raising the alarm,
- activating the fire skids when deemed necessary,
- stopping the operation in the event of an actual or potentially reportable incident and/or initiate appropriate remedial action.
- initiating any immediate responses to incidents in consultation with the customer's technical site representative. Reportable incidents include:
    - Split bags
    - Contamination
    - Dropped containers
    - Fire / fumes
    - Vehicle incidents
    - Non-approved personnel / breaches of the exclusion zone.

10.2.2 Stevedore Shift Manager/Foreman

The appointed licenced stevedoring company will appoint a shift manager/foreman to oversee the discharging or loading of ammonium nitrate, this person will be responsible for;

- Overseeing the safe discharge or loading of the ammonium nitrate,
- Conducting a fire watch when delegated and in the absence of the Port representative
- Raising the alarm,
- Activating the fire skids when deemed necessary, immediately notifying the PPA representative of any actual or potentially reportable incident.
- stopping the operation in the event of an actual or potentially reportable incident.
- initiating any immediate responses to incidents in consultation with the PPA representative. Reportable incidents include:
    - Split bags
    - Contamination
    - Dropped containers
    - Fire / fumes
    - Vehicle incidents
    - Non-approved personnel / breaches of the exclusion zone.

10.2.3 Watchmen

Immediately after the special berth has been closed to facilitate the setting up of signage and the demarcation of exclusion zones, watchmen, appointed by the cargo owner, are required to be located on the berth.

The watchmen are responsible for undertaking the following duties during berth preparation activities and the subsequent cargo handling operation:

- Being alert to any incident of fire and raising the alarm,
- Activating the fire skids when deemed necessary,
- Ensuring there are no naked flames (no smoking) or ignition sources within the demarcated area. Smoking is only permitted in designated smoking areas which are in the Common User Pad (CUP) and adjacent to the Qube shed.
- Mobile phones are to be switched off or on silent and are not to be used when handling DG cargo. Mobile phones are permitted to be used in the crib rooms during periods of rest or meal breaks. For safety purposes, the wharf foreman is permitted to carry and use his/her mobile phone when overseeing operations on the wharf.
- Ensuring that all authorised vehicles entering the special berth area are diesel powered.
- Recording details of any trucks and any IBS's (bags) entering or leaving the berth area.
- Ensuring that no more than one truck per working crane enters the wharf at any one time. (1 x crane working = 1 truck on berth, 2 cranes working = max 2 trucks on the berth.)
- Refusing access to persons whose name does not appear on the authorised access list. The cargo owner, PPA and stevedores are to provide a list of pre-approved persons for this purpose.
- Check that all truck drivers possess the required DG Security, MSIC and PPA Induction identification cards. (Refer Watchman Checklist at Section 3 of Appendix 8)

10.3 Forklifts

Forklifts may only be used on board the vessel if they comply with the following requirements:

- A fire extinguisher must be attached to the forklift.
- The forklift is to have no oil or diesel fuel leaks.
- Forklifts are not to be left running unattended in the vessel hold.
- Forklifts must be removed from the vessel hold if the hold requires closing.

11. EXCLUSION ZONES AND TRAFFIC MANAGEMENT

- There is to be a maximum of one truck per hook (if two cranes are operating then two trucks are permissible) on the wharf at any given time. Trucks are to strap down cargo in the designated area situated at the exit ramps (strappers to be provided by the transport company). One truck waiting on the access ramp is permitted. All other trucks are to queue outside the port gates in areas designated during the pre-cargo briefing.
- As per the Port Authority's Traffic Management Plan, there is a 10km/hr. speed limit on all berths. Traffic flow is to be one way in an anticlockwise direction (unless approved otherwise by PPA Landside Operations) with all trucks facing forwards on the berth for immediate shifting. Manoeuvring is to be kept to a minimum.

- The wharf will be a restricted area during handling of ammonium nitrate. Vehicles not directly involved in the handling are not permitted closer than 25 meters to the area of operation.
- The exclusion zone is from the wharf face to the back of the wharf deck and 25 meters from the bow and stern of the vessel respectively.
- Dangerous goods, oil and combustible substances are not permitted within the 25 meter exclusion zone.
- Smoking and other ignition sources (hot work) are not permitted within the exclusion zone.
- Exclusion zone signage and barriers will be erected as per the attached plan. (Appendix 5)

12. SHIP TO SHORE COMMUNICATIONS

- A Ship/Shore Safety Checklist (refer Appendix 7) is to be completed in accordance with the AMSA Code of Practice for the Safe Loading and Unloading of Bulk Carriers prior to commencement of cargo handling operations for each vessel. The checklist is to be signed by an approved Stevedore representative and the Master/Chief Officer.
- As a result of the Covid19 pandemic, ship to shore checklists are to be emailed to the vessel master prior to the vessels arrival by the agent. The completed checklist is then to be returned to the Landside Operations East Co-ordinator.
- A vessel hold inspection is to be conducted immediately after berthing to assess safe access, condition of holds and (for imports) condition of stow and bags. Ships holds must be free of grease, oil and any protrusions which could damage bags during handling.

13. TRANSPORT REQUIREMENTS

The cargo owner is responsible for ensuring the following transport requirements have been complied with:

- All trucks must be suitable for the carriage of ammonium nitrate as determined by Australian Dangerous Goods Regulation ADG 7.
- All trucks carrying ammonium nitrate must be diesel powered.
- Trailers with under belly fuel tanks are not permitted to be used in ammonium nitrate handling operations.
- Trucks and trailers must display all necessary banners and signage for the transport of ammonium nitrate.
- All truck drivers possess the necessary DG transportation licences and security clearances and comply with MSIC and PPA Induction requirements.
  - A register of all drivers and their dangerous goods security card is maintained by the PPA.
- Truck drivers present the necessary cargo documentation upon arrival at the port security gates in order to gain port entry.
- Trucks are to be inspected thoroughly to ensure cleanliness and an absence of any residual petroleum product.
- Documentation is to be provided to the PPA by the cargo owner confirming this prior to trucks entering the Port area.

- Trailers used for Ammonium Nitrate carriage are to have non-wooden floors.
- All cargo is to be correctly restrained (IAW the National Load Restraint Guide)

14. AMMONIUM NITRATE CHARACTERISTICS

The following are Ammonium Nitrate specific responses and should be used in conjunction with The Port's Emergency Response Plan:

- Pure ammonium nitrate (NH_4NO_3) is a white, odourless salt with a melting point of about 170°C and is highly soluble.
- Ammonium Nitrate is not combustible and does not burn but it can aid in the initiation of fire and the combustion of other materials even if air is excluded. When contaminated with oil or combustible materials it can initiate a fire when hot.
- If ammonium nitrate is heated, it will decompose to give off toxic gases. In an open and unconfined situation, it will decompose completely in a steady controlled way with white fumes and vapours.
- If heated sufficiently (in a fire situation, pools of molten ammonium nitrate may be formed) and combined with contamination, confinement or both, other gases, including brown vapours of toxic gas, will be given off and the explosive potential of the ammonium nitrate will increase and can explode. Through self-accelerating reactions the temperature will continue to rise, and a detonation could occur.
- Only small amounts of contaminants are required to act as a catalyst. (Refer Appendix 9 for further details)
- When a fire involving ammonium nitrate, is judged to be out of control or if the fire is engulfing the ammonium nitrate it is recommended to evacuate. The evolution of toxic brown nitrogen dioxide is a sign that immediate evacuation is required. (Refer to Appendix 9)
- Fires involving ammonium nitrate cannot be extinguished by oxygen deprivation and attempts to smother fires with dry chemical, carbon dioxide or foam extinguishers will prove unsuccessful. Water is the most effective means of fire-fighting and must be applied promptly to any external fire threatening the ammonium nitrate as well as to the ammonium nitrate storage to keep it cool.

15. EMERGENCY RESPONSE

15.1 Fire, Smoke or Explosion

Ammonium Nitrate decomposes when heated releasing toxic gases enabling combustion. It is to be isolated from all sources of excessive heat and potential contaminants.

In the event of a fire:

- Follow the steps outlined within Appendix 11 as attached.
- Activate the break glass alarm systems located next to the fire water stand pipe and,
- Raise the alarm, call the PPA control tower, 91739030 or VHF Ch 16 or 12.
- Avoid breathing fumes
- The wharf foreman is to undertake an assessment of the fire, its location, size and then evaluate their ability to safely attack the fire with the available equipment (located on the wharf are two fire skids fitted with monitors and

a booster pump that can deliver water at 28lts per second with a range in excess of 42m). If their assessment is that the fire is beyond their capabilities, and they believe that it is unsafe to remain on the wharf, then an evacuation is to be undertaken.

Appendix 11 consists of flow charts that are designed to assist in decision making when confronted with;

- A fire on a vessel berthed at another berth within the Port.
- A fire on a vessel laden with ammonium nitrate, and
- A fire on the wharf deck and/or truck when an ammonium nitrate vessel is alongside.

Should the wharf foreman assess that it is safe to assist with attacking the fire ***on board the vessel*** they are to contact the vessel Master for approval to use shore water from the fire skid pump. If approval is granted, they are to activate the nearest (to the fire) fire skid pump and direct the water stream at the base of the fire or as directed by the vessel crew.

Should the wharf foreman assess that it is safe to attack the fire on ***the wharf deck or the truck*** they are to activate the nearest (to the fire) fire skid pump and direct the water stream at the base of the fire.

- DO NOT use dry chemical of foam fire extinguishers
- DO NOT batten down the hatches
- DO NOT use steam.
- Follow the steps as outlined within the PPA Emergency Response Plan

The PPA does not have an emergency response team and relies exclusively on the Department of Fire and Emergency Services (DFES) to react to fire incidents at the port.

Should the vessel need to be removed from the berth it is to be taken to a suitable area as approved by the Harbour Master subject to the specific hazard presented at the time.

PPA has adopted the Australasian Inter Service Incident Management System (AIIMS) for incident management as per the PPA Incident Management Plan. The Incident Controller (IC) is normally the Harbour Master in the first instance. The IC will assess the required response effort and adjust the size and scale of the response to meet the specific incident requirement in close consultation with other Hazard Management Agencies (HMA) and Combat Agencies.

16. SPILLAGES AND CONTAMINATION

16.1 Wharf

If a spillage or contamination of ammonium nitrate occurs on the wharf due to damaged and/or split bags or product is present from other damaged bags, the following procedure will occur:

- All lifting is to cease at the next safe opportunity.
- Spilled product is not to be returned to the original bag.
- Torn bags are to be taped up and then double bagged prior to removal.
- All spilt ammonium nitrate is to be swept and collected into spare bags and records kept accordingly.
- Spare bags are to meet the standards required and be labelled correctly.
- Follow the steps as outlined within the PPA Emergency Response Plan.
- Contaminated bags must be segregated and contained in accordance with the IMDG code and appropriately removed from site immediately for transport to the nominated storage location off the berth. Contaminated and split bags are the responsibility of the consignor.
- The wharf is to be thoroughly cleaned on completion of the shipment and any collected material returned to the customer.

16.2 Vessel Hold

- If a spillage or contamination of ammonium nitrate occurs in the vessel hold due to damaged and/or split bags or product is present from other damaged bags, the following procedure will occur:
- All lifting is to cease at the next safe opportunity.
- Spilled product is not to be returned to the original bag.
- Torn bags are to be taped up and then double bagged prior to removal.
- All spilt ammonium nitrate is to be swept and collected into spare bags and records kept accordingly. Spare bags are to meet the standards required and be labelled correctly.
- Follow the steps as outlined within the PPA Emergency Response Plan.
- Contaminated bags must be segregated and contained in accordance with the IMDG code and appropriately removed from site immediately for transport to the nominated storage location off the berth. Contaminated and split bags are the responsibility of the consignor.
- Bags are not to be landed directly on the wharf unless for immediate reasons of safety.

17. AFTER DEPARTURE REQUIREMENTS

On completion of cargo operations:

- All vessel holds which have contained ammonium nitrate are to be thoroughly cleaned. (after import operations)
- Prior to the vessel departing the berth the vessel Master or agent is required to lodge a written declaration with the Harbour Master stating that all holds have been suitably cleaned. (after import operations)
- A cargo manifest and stowage plan is to be provided to PPA Landside Operations. (for export operations)
- Cargo reconciliation is to be completed by the cargo owner in conjunction with the stevedores immediately following the completion of cargo operations.
- A safety audit must be completed after an ammonium nitrate shipment handled at the special berth (refer Appendix 8).
- A debrief is to be undertaken;

- Incidents,
- What went well,
- What did not go so well
- Improvements for future shipments

- Should there be a reportable occurrence during the loading or discharge, a "Dangerous Goods Incident Report Form (Refer Appendix 10) is to be completed by Landside Operations and lodged within 21 days unless otherwise agreed with the DMIRS Dangerous Goods Officer.
- Forms are to be emailed to resourcesafety@dmirs.wa.gov.au and shipping@pilbaraports.com.au

18. REFERENCES

- AS 3846 – 2005 The handling and transport of dangerous cargoes in port areas
- AS 4326:2008 The storage and handling of oxidising agents
- Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG7), edition 7TH edition. Consignors and importers may elect to comply with this edition but only for intra-state shipments within Western Australia.
- International Maritime Dangerous Goods Code 2020
- Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007 (Storage and Handling Regulations) part 8A.
- Dangerous Goods Safety (Explosives) Regulations 2007 (Explosives Regulations) Part 11A.
- IMO Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code)
- PPA Emergency Response Procedures
- PPA Cargo Procedures
- Dangerous Goods Safety Guidance Note Handling of explosion risk goods (ERGs) at a special berth (non-explosives) (May 2018)

19. DOCUMENT OWNER

The **Harbour Master** is responsible for this **Procedure.**

APPENDIX 1 – HANDLING OF EXPLOSION RISK GOODS (ERGS) AT A SPECIAL BERTH (NON-EXPLOSIVE) SAFETY GUIDANCE NOTE (MAY 2018)

WRITTEN EVIDENCE OF TESTING REQUIRED FOR EACH SHIPMENT OF SOLID AMMONIUM NITRATE OF UN 1942 AND UN 2067

Regulation 135M requires importers, consignors and berth operators to ensure that each shipment of ammonium nitrate classified under UN 1942 or 2067 is accompanied by written evidence of the testing done on the goods to support the dangerous goods classification.

The testing must be carried out prior to arrival at the port since testing after arrival defeats the safety benefits of the testing.

The testing documents must demonstrate that the correct testing has been done, clearly showing the results of the testing and a conclusion that the test substances have the correct classification and the correct UN number.

Written evidence is needed for two categories of testing:

A A chemical analysis of ammonium nitrate stating the percentages of each constituent, including the percentage of organic carbon.

- It is important that product with more than 90% of ammonium nitrate contains not more than 0.2% organic carbon, and product with 70 to 90% of ammonium nitrate contains less than 0.4% organic carbon.
- More detail of the above carbon percentage criteria are contained in the special provisions applying to ammonium nitrate (see Appendix 1).

B A UN gap test, being test Type 2(a) in Test Series 2 described in the 5th edition of the *United Nations Manual for Tests and Criteria* (Manual for Tests and Criteria).

Alternative tests approved by the Chief Officer for the category B test

The Chief Officer has approved two alternative methods to the Category B test. The UN gap test may be replaced with either:

- a test of resistance to detonation, or
- the chemical and physical analysis criteria.

Test of resistance to detonation

This test is commonly used in Europe and applies a detonation shock to the ammonium nitrate to test its shock sensitivity, just like the UN gap test. It uses a test apparatus consisting of a horizontal steel pipe resting on six lead (Pb) cylinders. After the test-detonation, the degree of compression of the lead cylinders is determined. The ammonium nitrate passes the test as long as at least one of the cylinders is crushed by less than 5%. Before being tested, the whole of the sample must be thermally cycled five times between 25 and 50°C

Chemical and physical analysis criteria

The shock sensitivity of pure, low carbon, high bulk density fertiliser ammonium nitrate is usually low. The two shock sensitivity tests described above may be omitted as long as the bulk density of the loose material is greater than 0.85 g/cm3 and the following criteria and test methods from

European Union Regulation (EC) No. 2003/2003 of 13 October 2003 relating to fertilizers (see annex III) apply:

- pH of solution (10 g in 100 mL water) ≥ 4.5
- maximum chlorine content ≤ 0.02% by weight
- copper content ≤ 10 mg/kg by weight
- not more than 5% by mass of the fertiliser can pass through a 1 mm mesh sieve and not more than 3% by mass pass through a 0.5 mm mesh sieve
- low porosity is established with an oil retention of less than 4% by mass.

Use of representative samples for testing

Meaningful testing can only be achieved with representative test samples collected prior to consigning the shipment. Sampling should only be conducted by persons who have been suitably trained in sampling procedures.

Note: Guidance on how to obtain representative samples is provided in annex IV part A of European Union Regulation (EC) No. 2003/2003 of 13 October 2003 relating to fertilizers.

APPENDIX 2 - MULTIMODAL DANGEROUS GOODS FORM

Australian Government
Australian Maritime Safety Authority

MULTIMODAL DANGEROUS GOODS FORM

This form meets the requirements of SOLAS 74 Chapter VII regulation 4 and MARPOL 73/78 Annex III regulation 4.

Note: When this form is used as a container/vehicle packing certificate only, not a combined document, a dangerous goods declaration signed by the shipper or supplier must have been issued/received to cover each dangerous goods consignment packed in the container. The container/vehicle packing certificate is not required for tanks.

Page 1 of 2

1. Shipper/Consignor/Sender 24 hour contact number:	2. Transport document number	
	3. Page of pages (page auto-numbers top right)	4. Shipper's reference
	5. Freight forwarder's reference	
6. Consignee	7. Carrier (to be completed by the carrier)	
	SHIPPER'S DECLARATION (refer to box 22 below) I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name(s), and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to the applicable international and national governmental regulations.	
8. This shipment is within the limitations prescribed for:	9. Additional handling information	
10. Vessel and date / 11. Port of loading		
12. Port of discharge / 13. Destination		

14. Shipping marks	No. and kind of packages; description of goods*		Gross Mass (kg)	Net Mass (kg)	Cube (m^3)

15. Container identification No./ Vehicle registration No.	16. Seal number(s)	17. Container/vehicle size & type	18. Tare mass (kg)	19. Total gross (incl tare) (kg)

CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with the applicable provisions† **Must be completed and signed for all container/ vehicle loads by person responsible for packing/loading.**	**21. RECEIVING ORGANIZATION RECEIPT** Received the above number of packages/containers/trailers in apparent good order and condition unless stated hereon. **Receiving organization remarks:**	
20. Name of company (see note 2 on notes page)	Haulier's name	**22. Name of company (of shipper preparing this note)**
Name/status of declarant	Vehicle reg no.	**Name/status of declarant**
Place and date	Signature and date	**Place and date**
Signature of declarant	DRIVER'S SIGNATURE	**Signature of declarant**

* DANGEROUS GOODS: You must specify - UN number, proper shipping name, class or division and packing group (where assigned) marine pollutant and observe the mandatory requirements under applicable national and international governmental regulations. For the purposes of the IMDG Code see 5.4.1.4. (see note 1 on notes page).

† For the purpose of the IMDG Code, see 5.4.2 (see also note 2 on notes page).

AMSA 250 (8/13)

MULTIMODAL DANGEROUS GOODS FORM

DOCUMENTARY ASPECTS OF THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS

Note 1: Description of Dangerous Goods

This information is provided as a guidance only, persons should refer to Chapter 5.4 of the Code for specific requirements. The basic items of information necessary, in addition to the number and kind of packages, and the total quantity (by volume or mass and, in the case of goods of Class 1, by the net explosive mass of the contents), in the description of each dangerous substance, material or article offered for shipment are:

1. The UN number shown for the goods in the IMDG Code preceded by the letters "UN".
2. The proper shipping name, including the technical name enclosed in parenthesis, as applicable.
3. The primary hazard class or, when assigned, the division of the goods, including the compatibility group letter for class 1.
4. Where assigned subsidiary hazard class or division number(s) shall be entered following the primary class hazard or division and shall be enclosed in parenthesis.
5. Where assigned, the packing group for the substance or article which may be preceded by "PG" (e.g. "PG II").

The words "Class" or "Division" may be included preceding the primary or subsidiary hazard class or division numbers.

The five elements of the dangerous goods description shall be shown in the order listed above (i.e. 1, 2, 3, 4, and 5) with no information interspersed, except as provided in the Code. Unless permitted or required by the Code, additional information shall be placed after the dangerous goods description. See 5.4.1.4.2 of the Code.

The proper shipping name shall be supplemented as required by the Code (see 5.4.1.4.3 of the Code), this includes (as applicable):

- Technical names for "n.o.s" and other generic descriptions. Proper shipping names that are assigned special provision 274 shall be supplemented with their technical or chemical group names.
- The words "**EMPTY UNCLEANED**" or "**RESIDUE LAST CONTAINED**" before or after the proper shipping name for empty packagings, including portable containers or bulk packagings, which contain the residues of dangerous goods of classes other than Class 7.
- The word "**WASTE**" before the proper shipping name for waste dangerous goods (other than radioactive materials) being transported for disposal or processing for disposal, unless this is already a part of the Proper Shipping Name.
- If the Proper Shipping Name of a substance which is transported or offered for transport in a liquid state at a temperature equal to or exceeding 100 °C, or in a solid state at a temperature equal to or exceeding 240°C, does not convey the elevated temperature condition (for example, by using the term **"MOLTEN"** or **"ELEVATED TEMPERATURE"** as part of the Proper Shipping Name), the word **"HOT"** shall immediately precede the Proper Shipping Name.
- If the goods to be transported are marine pollutants the goods shall be identified as "**Marine Pollutant**". (see 3.1.2.8 of the Code) and for generic or not otherwise specified (N.O.S.) entries the Proper Shipping Name shall be supplemented with the recognised chemical name of the marine pollutant (see 3.1.2.9 of the Code). The term "**Marine Pollutant**" may be supplemented with the term "**Environmentally Hazardous**"
- If applicable, the minimum flashpoint if 60oC or below (in °C closed cup (c.c.)). For class 5.2 organic peroxides which are also flammable the flashpoint need not be declared. See 5.4.1.4.3.6 of the Code.

The dangerous goods description shall be supplemented as required by the Code (see 5.4.1.5 of the Code), this includes (as applicable):

- Except for empty and uncleaned packages, the total quantity of dangerous goods bearing a different Proper Shipping Name, UN Number or packing group. For class 1 dangerous goods the quantity shall be the net explosive mass. For dangerous goods transported in salvage packagings an estimate of the quantity of dangerous good shall be given. The number and kind (e.g. drum, box, etc.) of packages shall also be indicated. UN packaging codes may only be used to supplement the description of the kind of package (e.g., one box (4G)). Abbreviations may be used to specify the unit of measurement for the total quantity.
  Note: The number, type and capacity of each inner packaging within the outer packaging of a combination packaging is not required to be indicated.
- Where dangerous goods are transported according to the exceptions for dangerous goods packed in limited quantities provided for in column 7a of the Dangerous Goods List and Chapter 3.4 of the Code , the words "**limited quantity**" or "**LTD QTY**" shall be included.
- Where dangerous goods are transported according to the exceptions for dangerous goods packed in excepted quantities provided for in column 7b of the Dangerous Goods List and chapter 3.5 of the Code, the words **"dangerous goods in excepted quantities"** shall be included.
- Where salvage packaging has been used, the words "**SALVAGE PACKAGING**" shall be included in the description of the goods.

For other additional information that may be required see 5.4.1.5 of the Code.

Examples of dangerous goods descriptions are provided at 5.4.1.4.4 of the Code.

Extra information is needed for certain goods of Class 1, 4.1, 5.2, 6.2, 7. See 5.4.1 of the Code.

In certain circumstances special certificates are required. See 5.4.4 of the Code.

Cargo transport units under fumigation (UN 3359) containing no other dangerous goods shall be transported in accordance with the special provisions in Chapter 5.5. of the Code. Transport documents associated with the carriage of such cargo transport units shall be completed in accordance with 5.5.3.7 of the Code and shall include:

.1 the UN number preceded by the letters "UN"; and

.2 the Proper Shipping Name followed by the words "AS COOLANT" or "AS CONDITIONER", as appropriate.

For example: UN 1845, CARBON DIOXIDE, SOLID, AS COOLANT.

Note 2: Container/Vehicle Packing Certificate (not required for portable tanks)

The signature given overleaf in Box 20 must be that of the person controlling the container/vehicle operation, who certifies that:

- The container/vehicle was clean, dry and apparently fit to receive the goods.
- If the consignments include goods of Class 1, other than division 1.4, the container is structurally serviceable in accordance with 7.1.2. of the IMDG Code.
- No incompatible goods have been packed into the container/vehicle unless specially authorized by the Competent Authority.
- All packages have been externally inspected for damage and only sound packages have been loaded.
- Drums have been stowed in an upright position, unless otherwise authorized by the Competent Authority.
- All packages have been properly packed and secured in the container/vehicle.
- When materials are transported in bulk packagings the cargo has been evenly distributed in the container/vehicle.
- The packages and the container/vehicle have been properly marked, labelled and placarded. Any irrelevant mark, labels and placards have been removed.
- When solid Carbon Dioxide (CO^2 - dry ice) is used for cooling purposes, the vehicle or freight container is externally marked with a warning mark at each access point where it can be easily seen by persons opening or entering the cargo transport unit, in accordance with 5.5.3.6 of the IMDG Code.
- A dangerous goods transport document, as indicated in 5.4.1 of the Code, has been received for each dangerous goods consignment loaded in the container/vehicle.

Refer to Australian Maritime Safety Authority website for the Multimodal Dangerous Good Form - https://www.amsa.gov.au/forms-and-publications/AMSA250.dot

APPENDIX 3 - DANGEROUS CARGOES REQUEST FOR PERMISSION

DANGEROUS CARGOES REQUEST FOR PERMISSION

This request is for permission to handle a specific shipment of dangerous cargo in the port of Port Hedland.

VESSEL AND AGENT DETAILS

Name of Vessel:		**Voyage Number:**	
Type of Vessel:		**ETA:**	
Vessel Agent / Contact:		**ETD:**	

CONTACT DETAILS OF PERSONNEL INVOLVED IN DISCHARGE / LOADING

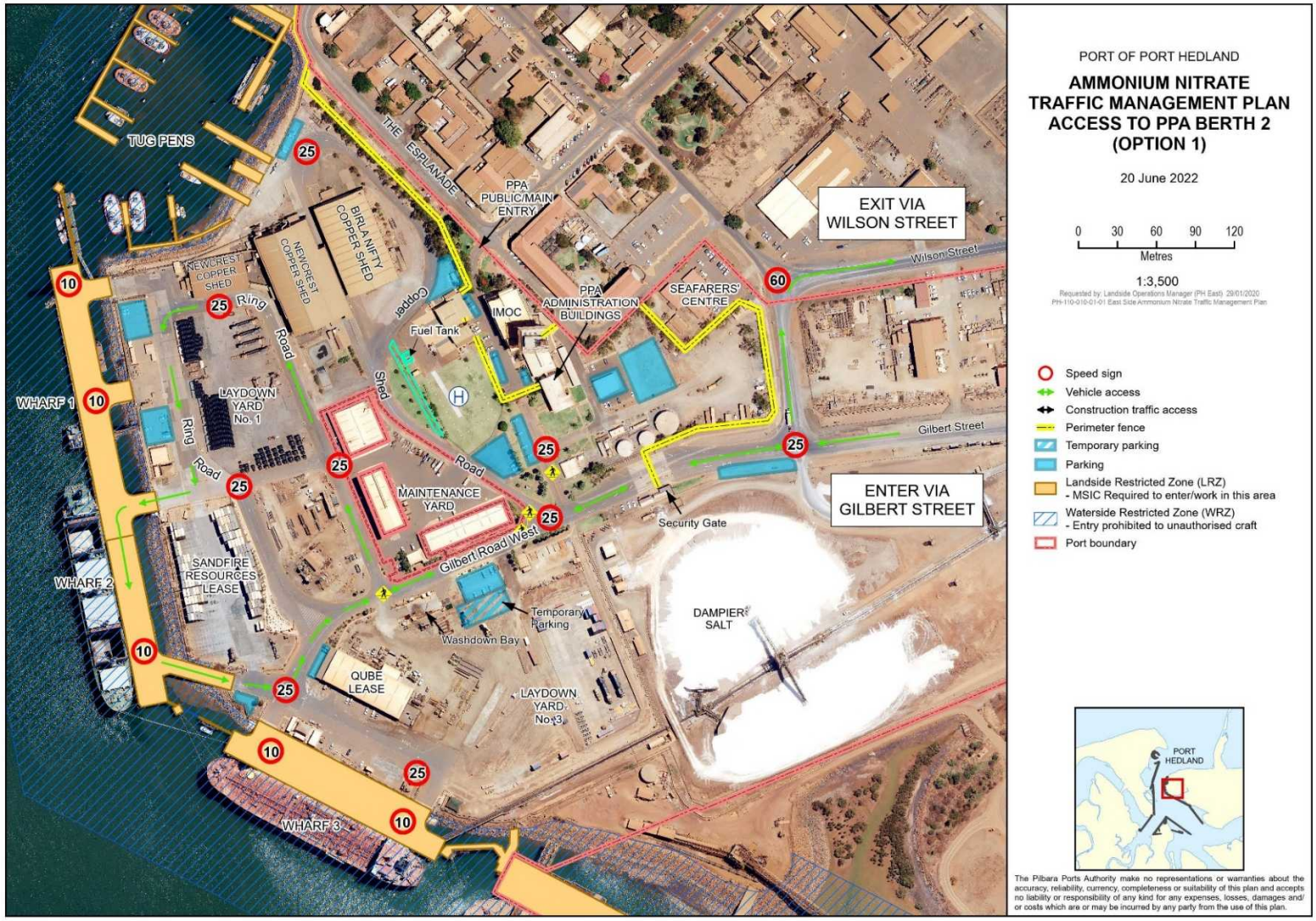
Contact Name	Company	Hours of Contact	Contact Number

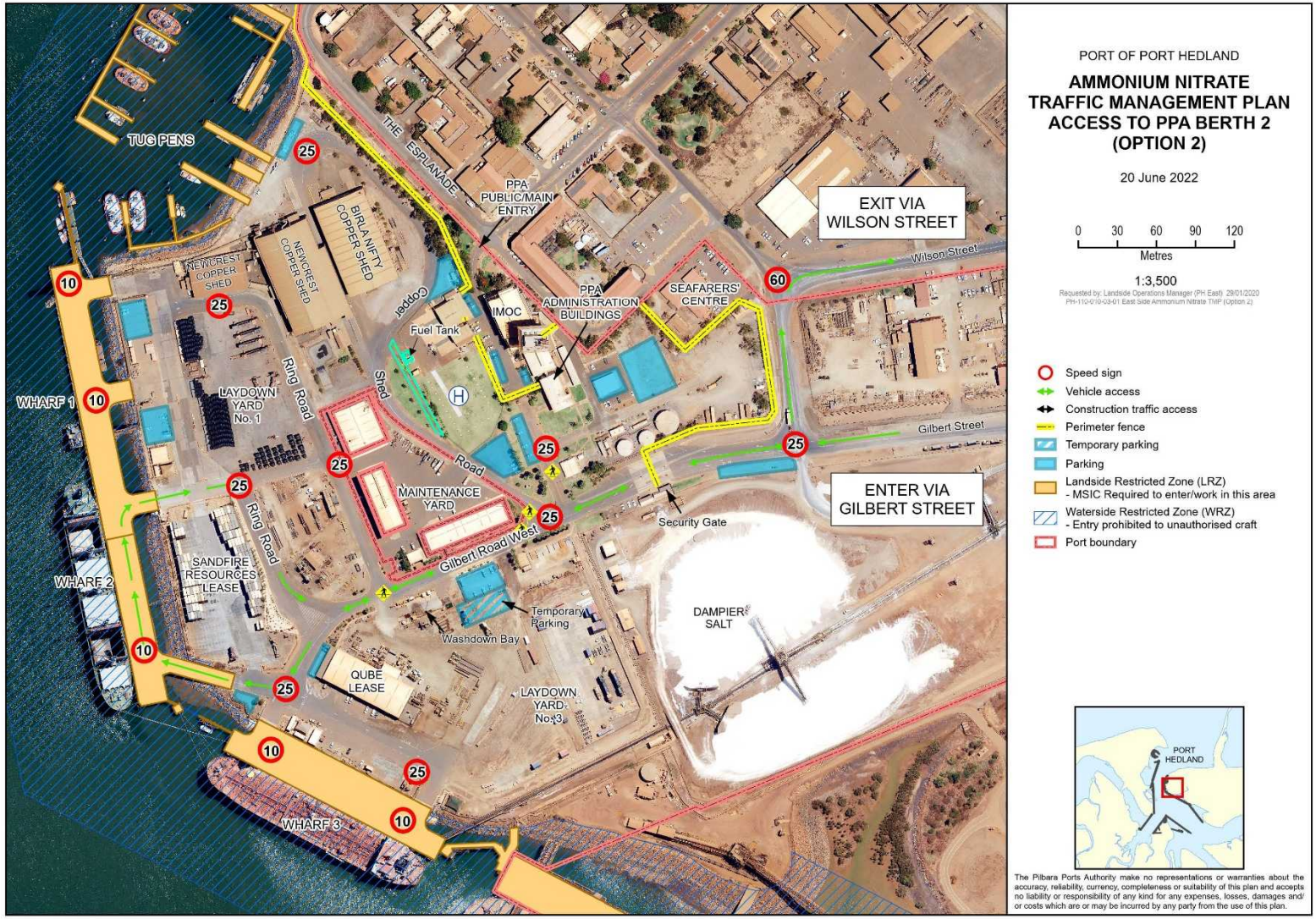
DETAILS OF DANGEROUS CARGOES

Technical Name	Class	UN Number	Container Type	Quantity	Discharge/Load

PROPOSED SAFETY CONTROLS			
Please indicate whether any of the following controls will be in place for the proposed shipment.			
SHIP		**BERTH**	
☐	Vessel safety management system	☐	Berth/vessel separation distances
☐	Vessel firefighting equipment	☐	Berth fire protection/resources
☐	Vessel flag/signals	☐	Port emergency response plans
☐	Vessel watchmen	☐	Product specific safety management system
☐	Vessel handling equipment	☐	Transfer procedures/equipment
☐	Vessel emergency response plan	☐	Time restrictions on berth
☐	Personal protective equipment	☐	Lifting procedures/equipment
☐	Control of ignition sources	☐	Personal protective equipment
☐	Other	☐	Berth security induction
		☐	Other
DECLARATION			
This request must be lodged with the Port Hedland Port Authority at least 24 hours prior to the scheduled berthing. Email: shipping@pilbaraports.com.au Fax: (08) 9173 9060.			
MASTER / OWNER / AGENT / CONSIGNOR			
Signature: _____		**Date / Time:** _____	
PILBARA PORTS AUTHORITY			
Signature: _____		**Date / Time:** _____	

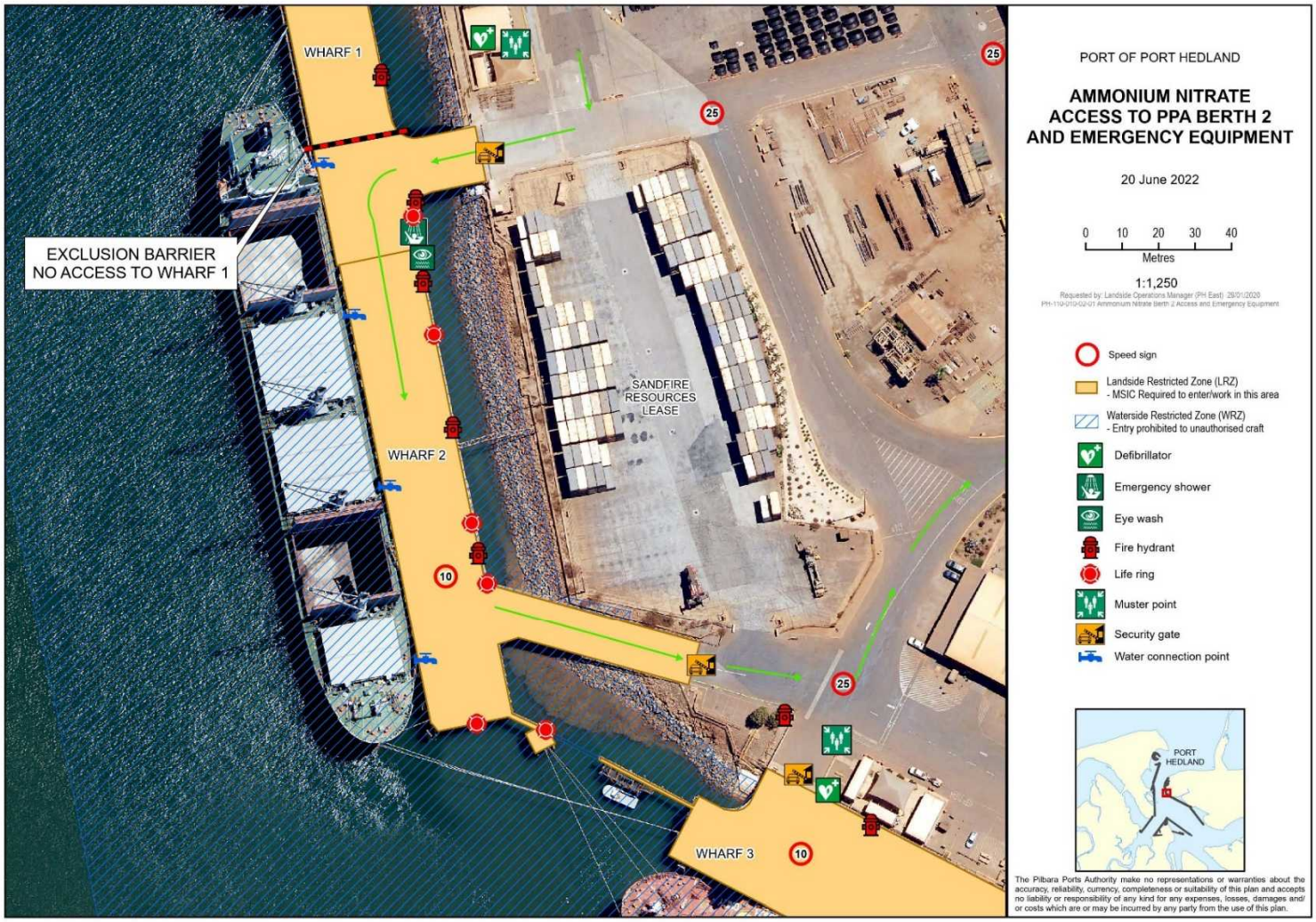
APPENDIX 4 - TRAFFIC MANAGEMENT PLAN ACCESS TO PPA BERTH 2




TUG PENS
THE ESPLANADE
PPA PUBLIC/MAIN ENTRY
EXIT VIA WILSON STREET
BIRLA NIFTY COPPER SHED
NEWCREST COPPER SHED
NEWCREST COPPER SHED
Copper
IMOC
PPA ADMINISTRATION BUILDINGS
SEAFARERS' CENTRE
Wilson Street
Fuel Tank
Shed
Ring Road
LAYDOWN YARD No. 1
WHARF 1
Gilbert Street
Road
MAINTENANCE YARD
ENTER VIA GILBERT STREET
Security Gate
Ring Road
Gilbert Road West
SANDFIRE RESOURCES LEASE
WHARF 2
Temporary Parking
Washdown Bay
DAMPIER SALT
QUBE LEASE
LAYDOWN YARD No. 3
WHARF 3
PORT OF PORT HEDLAND
AMMONIUM NITRATE TRAFFIC MANAGEMENT PLAN ACCESS TO PPA BERTH 2 (OPTION 2)
20 June 2022
0 30 60 90 120
Metres
1:3,500
Requested by: Landside Operations Manager (PH East) 29/01/2020
PH-110-010-03-01 East Side Ammonium Nitrate TMP (Option 2)
Speed sign
Vehicle access
Construction traffic access
Perimeter fence
Temporary parking
Parking
Landside Restricted Zone (LRZ)
- MSIC Required to enter/work in this area
Waterside Restricted Zone (WRZ)
- Entry prohibited to unauthorised craft
Port boundary
PORT HEDLAND
The Pilbara Ports Authority make no representations or warranties about the accuracy, reliability, currency, completeness or suitability of this plan and accepts no liability or responsibility of any kind for any expenses, losses, damages and/or costs which are or may be incurred by any party from the use of this plan.

APPENDIX 5 - AMMONIUM NITRATE ACCESS TO PPA BERTH 2 AND EMERGENCY EQUIPMENT

1.



APPENDIX 6 - TRAFFIC ROUTE FROM PH2 TO ORICA/DYNO NOBEL STORAGE FACILITY

A307205

APPENDIX 7 - SHIP SHORE SAFETY CHECKLIST

SHIP SHORE SAFETY CHECK LIST

Vessel Name:			
Port / Berth:		**Arrival Draught:**	
Type of Cargo:		**Departure Draught:**	
Time / Date of Arrival:		**Arrival Air Draught:**	
Quantity loaded / discharged:		**Departure Air Draught:**	

INSTRUCTIONS FOR COMPLETION

The safety of operations requires that all questions are answered affirmatively by ticking the box, by both the vessel representative and the Port Authority representative. If an affirmative answer is not possible, the reason should be given, and an agreement should be reached upon the appropriate precautions to be taken between the ship and the Port Authority. Where a question is not considered applicable, a note to this effect shall be inserted in the remark's column.

NO	CHECKPOINT	VESSEL	PPA	REMARKS
1	Is the depth of water at the berth, and the air draught, adequate for the cargo operations to be completed? (Air draught refers to max mast height for passing under bridges, and height required under loaders/unloaders at the berth)	☐	☐	
2	Are mooring arrangements adequate for all local effects of tide, current, weather, traffic and craft alongside?	☐	☐	
3	In an emergency, is the vessel able to leave the berth at any time?	☐	☐	
4	Is there safe access between the vessel and wharf?	☐	☐	
5	Is the agreed vessel/Port communication system operative? Communication method: Language: Radio channels/phone numbers:	☐	☐	

6	Are the liaison contact persons during operations positively identified? Ship contact person(s): Shore contact person(s): Location:	☐	☐	
7	Are adequate crews on-board, and adequate PPA staff available in an emergency?	☐	☐	
8	Have any bunkering operations been advised and agreed	☐	☐	
9	Have any intended repairs to wharf or vessel whilst alongside been advised and agreed, with restrictions on hot work?	☐	☐	
10	Has the procedure for reporting and recording damage from cargo operations been agreed?	☐	☐	
11	Has the vessel been provided with copies of port and Port regulations, including safety and pollution requirements and details of emergency services?	☐	☐	
12	Has the shipper provided the Master with the properties of the cargo in accordance with the requirements of Chapter VI of SOLAS?	☐	☐	
13	Is the atmosphere safe in holds and enclosed spaces to which access may be required, have fumigated cargoes been identified, and has the need for monitoring of the atmosphere been agreed by vessel and Port Authority?	☐	☐	
14	Have the cargo handling capacity and any limits of travel for each loader/unloader been passed by the vessel/Port? Loader no. Rate tonnes/hour Loader no. Rate tonnes/hour	☐	☐	
15	Has the cargo loading/unloading plan been calculated for all stages of loading/ballasting or unloading/ballasting? Copy lodged with:	☐	☐	

16	Have the holds to be worked been clearly identified in the loading and unloading plan, showing the sequence of work, and the grade and tonnage of cargo to be transferred each time the hold is worked?	☐	☐	
17	Are the hold floors clean and dry?	☐	☐	
18	Is the hold free of incompatible material? And will there be a separation of 12m at all times between the cargo and any incompatible material?	☐	☐	
19	Are there any sharp edges or protrusions that could damage the cargo?	☐	☐	
20	Are lashing points installed for Belly Bands?	☐	☐	
21	Are fire hoses run out and tested?	☐	☐	
22	Is the deck free of any incompatible material?	☐	☐	
23	Has the required amount of tape and plastic been delivered?	☐	☐	
24	Have PPA checks and approvals to commence handling been signed off?	☐	☐	
25	Have the stevedore ship to shore checks been completed and signed off?	☐	☐	
26	Has the need for trimming of cargo in the holds been discussed, and the method and extent been agreed?	☐	☐	
27	Do both vessel and Port understand and accept that if the ballast program becomes out of step with the cargo operation, it will be necessary to suspend cargo operation until the ballast operation has caught up?	☐	☐	
28	Have the intended procedures for moving cargo residues lodged in the holds while unloading, been explained to the vessel and accepted?	☐	☐	
29	Have the procedures to adjust the final trim of the loading ship been decided and agreed?	☐	☐	
30	Has the Port been advised of the time required for the vessel to prepare for sea, on completion of cargo work?	☐	☐	

31	Has the vessel been advised on how to protect the fertilizer cargo from product quality damage during the voyage?	☐	☐	
32	Has the vessel received and accepted the following information prior to loading? Safety Data Sheet? Instruction to ship's crew concerning the avoidance of heat sources when loading/unloading and carrying ammonium nitrate based fertilizers? Instruction to ship's crew for handling of emergencies involving the decomposition of ammonium nitrate based fertilizers?	☐	☐	
33	Has the vessels crew been advised that smoking shall be strictly prohibited on the ship and on the special berth, except in safe areas?	☐	☐	
34	Has the paint locker/stores compartment or any areas containing combustibles been locked and all crew advised that they are to remain locked until completion of the discharge.	☐	☐	
35	Is the vessel ready to discharge?	☐	☐	

DECLARATION

We have checked, where appropriate jointly, the items on this checklist and have satisfied ourselves that the entries we have made are correct to the best of our knowledge, and arrangements have been made to carry out repetitive checks if necessary.

VESSEL		**PILBARA PORTS AUTHORITY**	
Name & Rank:	_____	**Name & Position:**	_____
Signature:	_____	**Signature:**	_____
Date / Time:	_____	**Date / Time:**	_____

APPENDIX 8 - SAFETY AUDIT

Explosion risk goods at a special berth – Audit

SECTION 1. CARGO SHIPMENT DETAILS *TO BE COMPLETED BY PPA REPRESENTATIVE*			
Special berth name	Berth 2		
Port name	Port Hedland		
Vessel name			
Dangerous goods cargo			
Shipping name			
UN number			
Class			
Packing Group			
Quantity to be loaded/unloaded			
Quantity in transit			
Port of loading			
Port of unloading			
Name and details for responsible person in charge of onshore handling	**Shift 1:**	**Name:**	**Position:**
	Shift 2:	**Name:**	**Position:**
	Shift 3:	**Name:**	**Position:**
	Shift 4:	**Name:**	**Position:**
Name of person in charge of handling on ship	**Shift 1:**	**Name:**	**Position:**
	Shift 2:	**Name:**	**Position:**
	Shift 3:	**Name:**	**Position:**
	Shift 4:	**Name:**	**Position:**
Name of special berth declaration representative	**PPA Shift 1:**	**Name:**	**Position:**
	PPA Shift 2:	**Name:**	**Position:**
	PPA Shift 3:	**Name:**	**Position:**
	PPA Shift 4:	**Name:**	**Position:**

SECTION 2. SPECIAL BERTH SYSTEM CHECKS & SAFETY MANAGEMENT REQUIREMENTS
TO BE COMPLETED BY PPA REPRESENTATIVE

PRE-ARRIVAL - DOCUMENTATION RECEIVED

DATE	TIME	ACTIVITY	COMPLIANCE VERIFIED	SIGNATURE
		Dangerous Goods Request for Permission form		
		UN 2(a) Gap Test		
		Certificate of Analysis (for overseas shipments only)		
		Notification email to TSO (submitted by PPA Security)		
		Multimodal DG Plan		
		Stow Plan		
		Hold Report		
		Manifest		
		Packaging suitability / Bag test report		
		Bill of Lading / Delivery Order		
		Crew List		
		Dangerous goods security cards for PPA Operations staff & all truck		
		DG Drivers Licences (All drivers)		
		Trucking registration lists sent to Manifests		
		Customs & DOA clearance (as applicable)		

PRE- ARRIVAL - GENERAL				
		Does the PPA have a security plan in place on shore side (port)?		
		Does the PPA have a security plan in place on water side (port)?		
		Have the Watchperson Packs been created and provided to the Stevedores, and include the following: • Authorised Personnel List • Crew List • Emergency Response Plan • Exclusion Zone • Traffic Management Plan • SDS • Stow Plan • PPA Ammonium Nitrate Procedure		
		Is there an incident reporting system in place?		

PRE-ARRIVAL - BERTH CHECKS				
DATE	**TIME**	**ACTIVITY**	**COMPLIANCE VERIFIED**	**SIGNATURE**
		Is the exclusion zone demarcated, and: ☐ Dangerous Goods and Exclusion Zone signs at the base of the access ramps ☐ Signage & barrier – 25m exclusion zone between berth 1&2		
		If the following documentation on site at watchperson stations? ☐ Emergency Response Plan ☐ Procedure in event of a Fire ☐ PPA Ammonium Nitrate Procedure ☐ SDS ☐ Authorised Personnel Lists		
		Have the following hazards been checked? ☐ Berth is clean and clear – free from combustible dust, oil and ignition sources, debris and wiring ☐ The discharge route is clear ☐ Sufficient lighting ☐ No tankers on berths 1 or 3		
		Is the following emergency equipment checked and ready for use? ☐ 2 x shore fire skids, connected, tested and ready for operation ☐ Safety shower tested ☐ Emergency eye wash station tested ☐ PPA spill bins at least ¾ full ☐ Spare and approved bags on site		
		Personnel present are wearing required PPE		
WHILE VESSEL IS ALONGSIDE				
		Is there a responsible person observing the loading or unloading operation and able to stop the operation in the event of an actual or potential reportable incident and/or initiate appropriate remedial action?		
		Has the Ship to Shore Safety Checklist has been completed by the Vessel Master/Chief Officer and PPA?		

		Have the following vessel checks been performed? ☐ Vessel is berthed starboard side alongside ☐ Deck is clear of obstruction and combustibles ☐ Paint locker and stores or areas containing combustibles are to be locked away during Ammonium Nitrate Handling ☐ Flag "B" on display and red light at night ☐ International Shore Fire connection is available ☐ Vessel Fire and safety Plan (Fire Control Plan) is readily available at the gangway. ☐ Vessel's Fire Fighting equipment is ready for use. ☐ Gangway watch		
DATE	**TIME**	**ACTIVITY**	**COMPLIANCE VERIFIED**	**SIGNATURE**
		Are vehicles positioned in such a way that they can be driven away in a forward direction with minimal manoeuvring?		
		Is the Ammonium Nitrate removed as soon as possible from the berth and within 12 hours of being unloaded from a vessel, or within 24 hours of being delivered to the berth?		
		Is a disposal procedure in place for spills in accordance with risk assessment and security in accordance with SRS Regulations?		
		Are vehicles travelling within the speed limit, i.e. 10 km/h on the wharf, and 25km/h within the port limits.		
		Reporting of reportable incidents such as split bags, contamination, dropped containers, fire and vehicle incidents		
POST HANDLING OPERATIONS				
		Has a post-load debrief been organised?		

PPA REPRESENTATIVE DECLARATION					
Any other comments or issues regarding safety and security					
Responsible person's name		**Signature**		**Date**	

SECTION 3 – WATCHMAN'S CHECKLIST - TO BE COMPLETED BY STEVEDORE WATCH PERSON				
DATE	**TIME**	**ACTIVITY**	**COMPLIANCE VERIFIED**	**SIGNATURE**
		Berth Access ☐ Is there signage & barriers in place as per exclusion zone and traffic management? ☐ Are there advisory signs in place? ☐ Is there restricted access to vehicles not directly involved at all times – no closer than 25m (outside exclusion zone)? ☐ Is access being refused to illegitimate persons? ☐ Is there access only to persons on pre-approved list (watchperson to have a copy)? ☐ Do the truck drivers have required access cards & licences? ☐ Is there only 1 truck per working crane? **Fire Safety** ☐ Are there 2 x shore skids connected, tested and ready for operation? ☐ Do you have a copy of the Emergency Response Plan? ☐ Do you have a copy of emergency contact numbers? ☐ Do you have a copy of the Emergency Evacuation Plan? ☐ Do you have a copy of the SDS? **General** ☐ Is there a record of all bags entering and leaving the berth? ☐ Are personnel wearing the required PPE? ☐ Is the Vessel's Flag 'B' on display and red light at night? **Trucks** ☐ Are the trucks diesel powered only, with no underbelly tanks? ☐ Are the trucks clean? ☐ Have the trailers been inspected to ensure they don't have a wooden floor? ☐ Are trucks and trailers displaying DG banners and signage? ☐ Are trucks queued in the designated area outside port gates only?		
Notes/Observations:				
Work / Maintenance required:				
Name of Watchperson:				

APPENDIX 9 – AMMONIUM NITRATE PROPERTIES AND HAZARDS

Physical and chemical properties:

Pure ammonium nitrate is a white, odourless salt with a melting point of 169.6°C, molecular formula NH4NO3 and molecular weight 80.

Solid ammonium nitrate occurs in five different stable crystalline forms, depending on the temperature. Pure ammonium nitrate undergoes phase changes when heated. Of most commercial significance is the phase change occurring near ambient temperatures at 32°C. This transition results in a density change with an increase of 3.6% in volume.

The major problems associated with the storage of ammonium nitrate are hygroscopicity and phase changes leading to the breakdown of the prill and caking of the product. Very small amounts of various proprietorial additives are therefore used to minimise, but not eliminate, the effects of hygroscopicity and phase changes. The amount of carbonaceous additives must be kept below 0.2% of carbon in order for the product to be classified as a Class 5.1 oxidising agent. The UN classification system for dangerous goods classifies ammonium nitrate with a higher carbon content as a 1.1D explosive.

Ammonium nitrate is highly soluble in water, with solubility increasing rapidly with temperature. At 20°C, 1 mL of water will dissolve 1.877 g of ammonium nitrate, and at 50°C, it will dissolve 3.440 g of ammonium nitrate.

Ammonium nitrate is hygroscopic and deliquescent in that it tends to absorb water from the atmosphere and is capable of attracting so much water that it dissolves into an aqueous solution. Aqueous solutions are slightly acidic a 0.1 Molar solution has a pH of 5.4).

While it is not in itself combustible, it is an oxidising agent, can facilitate the initiation of fire and will assist combustion of other materials, even if air is excluded.

Hazards:

The main chemical hazards to consider are: fire; decomposition with formation of toxic gases, and explosion.

Hot ammonium nitrate solutions present the additional hazard of causing burns if in contact with the skin, but this hazard is not considered here.

Fire:

Ammonium nitrate itself does not burn. Being an oxidising agent, it can facilitate the initiation of fire and intensify fires in combustible materials.

Hot ammonium nitrate solutions can initiate fires when meeting rags, wooden articles and clothing. Other combustible materials impregnated with ammonium nitrate have been known to start burning spontaneously when left on hot surfaces. Similarly, ammonium nitrate products contaminated with oil or combustible materials can start a fire when hot.

Fires involving ammonium nitrate cannot be extinguished by the prevention of air ingress because of the in-situ provision of oxygen from ammonium nitrate.

Decomposition:

Molten ammonium nitrate decomposes at about 210°C to give off toxic gases.

If ammonium nitrate is heated in an open and unconfined situation, it will decompose completely to give gaseous products in a steady controlled way with white fumes and vapours. The primary reaction is irreversible, exothermic and produces nitrous oxide (N2O), a medical anaesthetic, and water.

$NH_4NO_3 \rightarrow N_2O + 2H_2O$ (+ 450 kJ/kg)

If the reaction temperature is allowed to exceed 250°C then it is accompanied by an endothermic reaction producing ammonia (NH3) and nitric acid (HNO3).

$NH_4NO_3 \rightarrow HNO_3 + NH_3$ (- 2200 kJ/kg)

Providing gases can escape freely, this combination of exothermic and endothermic reactions can provide a temperature limiting mechanism so that the temperature does not rise above 300°C, even with the input of a considerable amount of external heating.

Explosion:

Pure ammonium nitrate is difficult to detonate, and flame, spark, rough handling, impact or friction are not known to cause a propagated detonation.

An explosion of pure ammonium nitrate can be initiated with high explosives under ambient conditions, and explosives must never be used to break up or loosen caked ammonium nitrate. Under ambient conditions, it is not possible to initiate ammonium nitrate by means of a bullet. However, the shock sensitivity of molten ammonium nitrate increases significantly with temperature, and severe mechanical impact under extreme conditions of temperature may lead to detonation in certain circumstances.

Ammonium nitrate can also explode without shock if heated sufficiently, but only if contaminated, under confinement, or both. Under these circumstances, the temperature will quickly rise above 300°C, giving off other gases including brown vapours of toxic nitrogen dioxide (NO2). The temperature will continue to rise through self- accelerating reactions, and a detonation may occur. In a fire, for example, pools of molten ammonium nitrate may be formed and if the molten mass becomes confined, such as in drains, pipes, plant or machinery, it could explode, particularly if it becomes contaminated. Fires involving ammonium nitrate have caused many explosions in the past. It is also true that there have been many more fires involving ammonium nitrate that did not lead to explosions.

The potential for an explosion is always present when the ammonium nitrate melt is contaminated, and the following explosion reaction is catalysed:

$NH_4NO_3 \rightarrow N_2 + 2H_2O + \frac{1}{2} O_2$ (+ 1580 kJ/kg)

An explosion is favoured by the increased heat of explosion and increased sensitivity when further mixed with the optimum amount of fuel (such as diesel fuel, a hydrocarbon represented

by CH2) so that the following oxygen-balanced (no net oxygen produced or required) reaction (as in the explosion of ANFO) occurs:

$3(NH_4NO_3) + CH_2 \rightarrow 3N_2 + 7\ H_2O + CO_2$ (+ 4017 kJ/kg)

Ammonium nitrate is ideally set up as an explosive substance, since it carries the oxidising nitrate ion in intimate contact with the fuel element, the ammonium ion. All that is required are small amounts of contaminants to act as a catalyst, explaining the unpredictability of ammonium nitrate under fire conditions.

A long list of potentially dangerous contaminants, including combustible liquids, metals and fuels of any type as well as any of the incompatible substances, is given in Chapter 5.

ammonium nitrate dust, being non-combustible in nature, does not give rise to dust explosion hazards such as those commonly associated with organic dusts like grain or flour.

Hazard management:

In summary, the risk of an explosion is increased by heating ammonium nitrate, such as in a fire, in combination with: contamination; confinement; or both, such as in enclosed drains or enclosed parts of equipment.

Fires and resulting explosions are avoided by rigorously eliminating and reducing the amount of potential fuel in and around the storage site. If all potential sources of fuel can be eliminated, the chance of an accidental explosion is remote. Given the nature of modern formulations of ammonium nitrate, explosions (excluding those initiated by explosives) without prior fire are not a credible accident scenario for solid ammonium nitrate. However, such explosions can and have occurred with concentrated hot solutions, particularly during manufacture.

APPENDIX 10 - DANGEROUS GOODS INCIDENT REPORT FORM

File Number	Incident Number

OFFICE USE ONLY

Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Resources Safety

1 Adelaide Terrace, East Perth WA 6004
Postal address: 100 Plain Street, East Perth WA 6004
Telephone: (08) 9358 8002 Facsimile: (08) 9358 8000
dgsb@dmirs.wa.gov.au

Dangerous goods incident report form

This form is to be completed and lodged with Resources Resources Safety within 21 days of a *reportable* situation unless otherwise agreed with a Dangerous Goods Officer

1. Incident operational category			
☐ Storage and handling	☐ Explosives	☐ Major hazard facility (MHF)	☐ Pipeline
☐ Port	☐ Security Sensitive Ammonium Nitrate	☐ Transport – road and rail	

2. Incident location and time/date	
Date (use DD/MM/YYYY) Click here to enter text.	**Time** (use 24-hour clock) Click here to enter text.
Incident location - street address or geographical coordinates (GPS location). For transport or pipeline incidents, describe which section of road / rail / pipeline. Click here to enter text.	

3. Owner / operator / consignor / contractor details
Name of owner Click here to enter text.
Address of owner Click here to enter text.
Name of operator Click here to enter text.
Address of operator Click here to enter text.
Transport incidents
Consignor name Click here to enter text.
Consignor address Click here to enter text.
Prime contractor name Click here to enter text.
Prime contractor address Click here to enter text.

4. Licence / permit details	
Dangerous goods / explosives driver licence no. Click here to enter text.	Dangerous goods / explosives transport licence no. Click here to enter text.
Dangerous goods site licence no. Click here to enter text.	Explosives / security risk substances licence / fireworks permit no. Click here to enter text.

5. Activity			
☐ Loading / unloading	☐ Manufacture / processing	☐ Pipeline transfer	☐ Static / stored
☐ Transport / enroute	☐ Use	☐ Display	☐ Other: Click here to enter text.

6. Incident type (select all that apply)		
☐ BLEVE – boiling liquid expanding vapour explosion	☐ No spill	☐ SSAN or explosives – unauthorised access
☐ Explosion	☐ Overpressure	☐ SSAN or explosives – unexplained loss
☐ Fire	☐ Reaction	☐ Theft
☐ Lifting / impact	☐ Sabotage / vandalism	☐ Vapour release
☐ Near miss	☐ Spill	☐ Other Click here to enter text.

7. Severity				
☐ Catastrophic	☐ Major	☐ Significant	☐ Moderate	☐ Minor

8. Main causes (immediate casual factors; select up to three major causes)				
☐ Chime failure	☐ Incompatible goods	☐ Seam failure	☐ Vehicle incident (collision, rollover, loss of load)	☐ Other Click here to enter text.
☐ Closure	☐ Incorrect handling	☐ Tear or abrasion		
☐ Corrosion	☐ Procedural error	☐ Training, lack of	☐ Vent faulty/failure	
☐ Defective fitting	☐ Puncture	☐ Valve failure	☐ Weld	

9.Description of goods involved			
Product name (proper shipping name)	Click here to enter text.	Click here to enter text.	Click here to enter text.
	Click here to enter text.	Click here to enter text.	Click here to enter text.
UN no.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Class or Division	Click here to enter text.	Click here to enter text.	Click here to enter text.
Compatibility group (explosives only)	Click here to enter text.	Click here to enter text.	Click here to enter text.
Quantity present	Click here to enter text.	Click here to enter text.	Click here to enter text.
Quantity involved	Click here to enter text.	Click here to enter text.	Click here to enter text.
Container details (e.g. packages, bulk loose solids, bulk solids container, intermediate bulk container, process vessel, ISO tank, tanker, transportable tank, pipeline)	Click here to enter text.	Click here to enter text.	Click here to enter text.
If more than 3 DGs are involved, attach manifest or transport document.			

10.Site details (dangerous goods storage and handling, explosives, security risk substances, MHF incidents only)			
☐ Bulk depot / terminal	☐ Farm / rural property	☐ Process / chemical plant	☐ Transport depot
☐ Construction site	☐ Fireworks display	☐ Rail yard	☐ Warehouse / factory
☐ Dwelling	☐ Hospital	☐ School	☐ Water treatment plant
☐ Explosives manufacturing plant	☐ Mine site	☐ Service station	☐ Wharf / jetty / dock
☐ Explosives packing plant	☐ Office	☐ Shop / retail outlet	☐ Other: Click here to enter text.

11. Transport details (transport incidents or port incidents involving a vehicle)				
Name of driver Click here to enter text.			DoT Drivers Licence no. Click here to enter text.	
Address Click here to enter text.				
Driver is ☐ Employee ☐Contractor			Estimated speed at time of incident: kmph	
Vehicle registration no./s	1. Click here to enter text.	2. Click here to enter text.	3. Click here to enter text.	4. Click here to enter text.
Vehicle type	☐ Freight container	☐ Hopper	☐ Skeletal	☐ Tautliner
	☐ Dumper	☐ Pantechnicon	☐ Tanker	☐ Tray top
Vehicle configuration	☐ B-double	☐ Road train – no. of trailers Click here to enter text.	☐ Trailer	
	☐ Rigid		☐ Other: Click here to enter text.	
		☐ Semi-trailer/articulated		

12. Consequences of incident			
No. of fatalities Click here to enter text.		No. of fatalities resulting directly from goods Click here to enter text.	
No. of injured / hospitalised Click here to enter text.		Description of injuries resulting directly from goods Click here to enter text.	
No. of people evacuated Click here to enter text.		Size of area evacuated (e.g. 300 m radius from incident site, area 500 m x 2 km downwind of incident site) Click here to enter text.	
Road closures – details of road sections closed and duration of closure Click here to enter text.			
Environmental damage – details Click here to enter text.			
Estimated costs of incident Click here to enter text.	Property damage	$ Click here to enter text.	Total manhours: Click here to enter text.
	Recovery costs	$ Click here to enter text.	
	Environmental cleanup costs	$ Click here to enter text.	

13. Incident summary (not more than 25 words)
Click here to enter text.

14. Full incident description (include events leading up to and after the incident; attach diagrams or additional pages if required)
Click here to enter text.

15. Incident response actions (detail immediate measures taken to control damage / spill / fire / explosion and make area safe)
Click here to enter text.

16. Root causes / contributing factors
Methodology used to investigate: ☐ ICAM ☐ TapRoot® ☐ Other. Click here to enter text.
Click here to enter text.

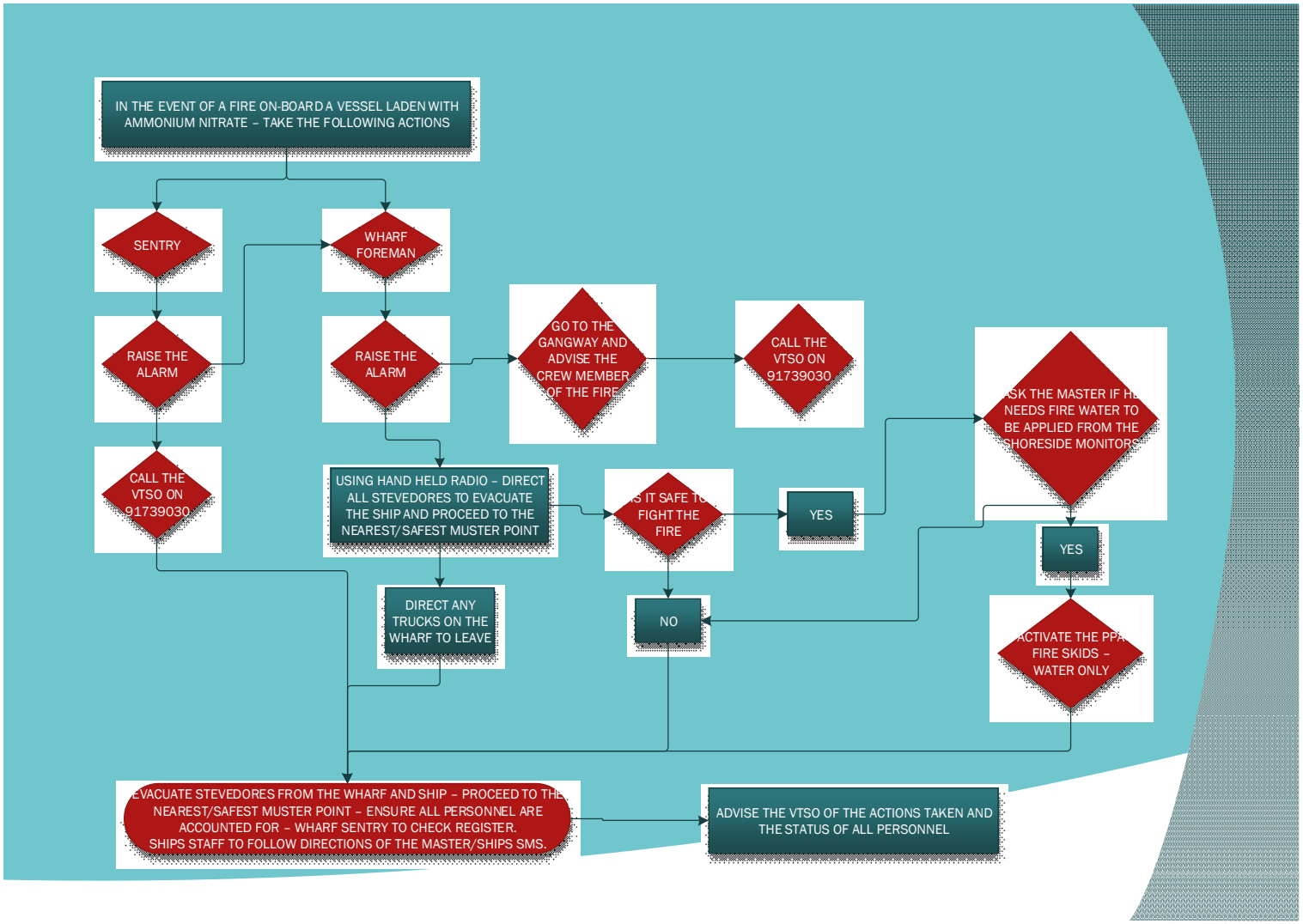
17. What actions taken to prevent recurrence
Click here to enter text.

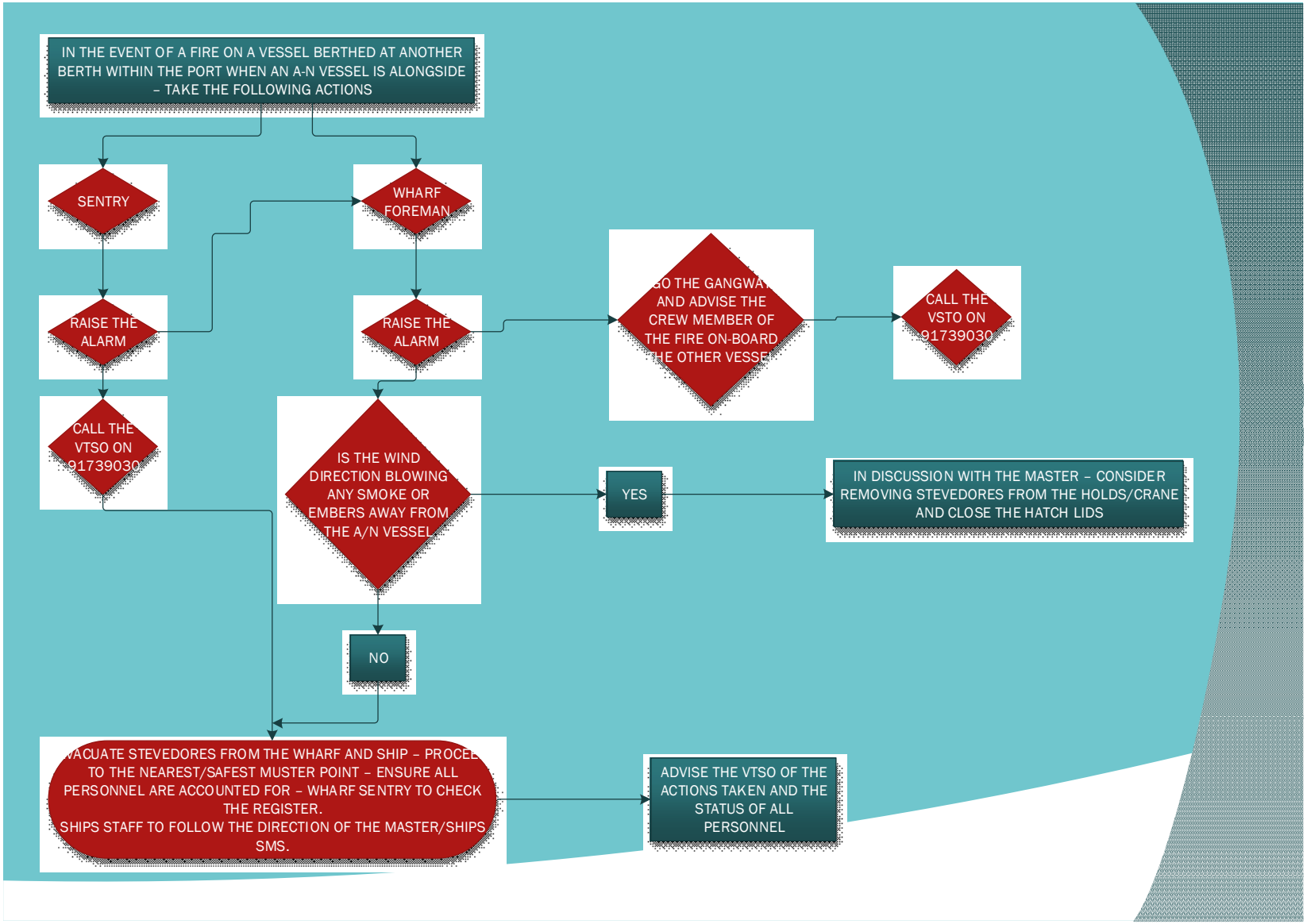
18. Details and certification of person completing this report		
Name Click here to enter text.		
Position Click here to enter text.		
Address Click here to enter text.		
Phone no. Click here to enter text.	Fax no. Click here to enter text.	Email. Click here to enter text.
I certify that the information supplied in this incident report is accurate to the best of my knowledge Name of person completeing report Click here to enter text. _ Date Click here to enter text. —		

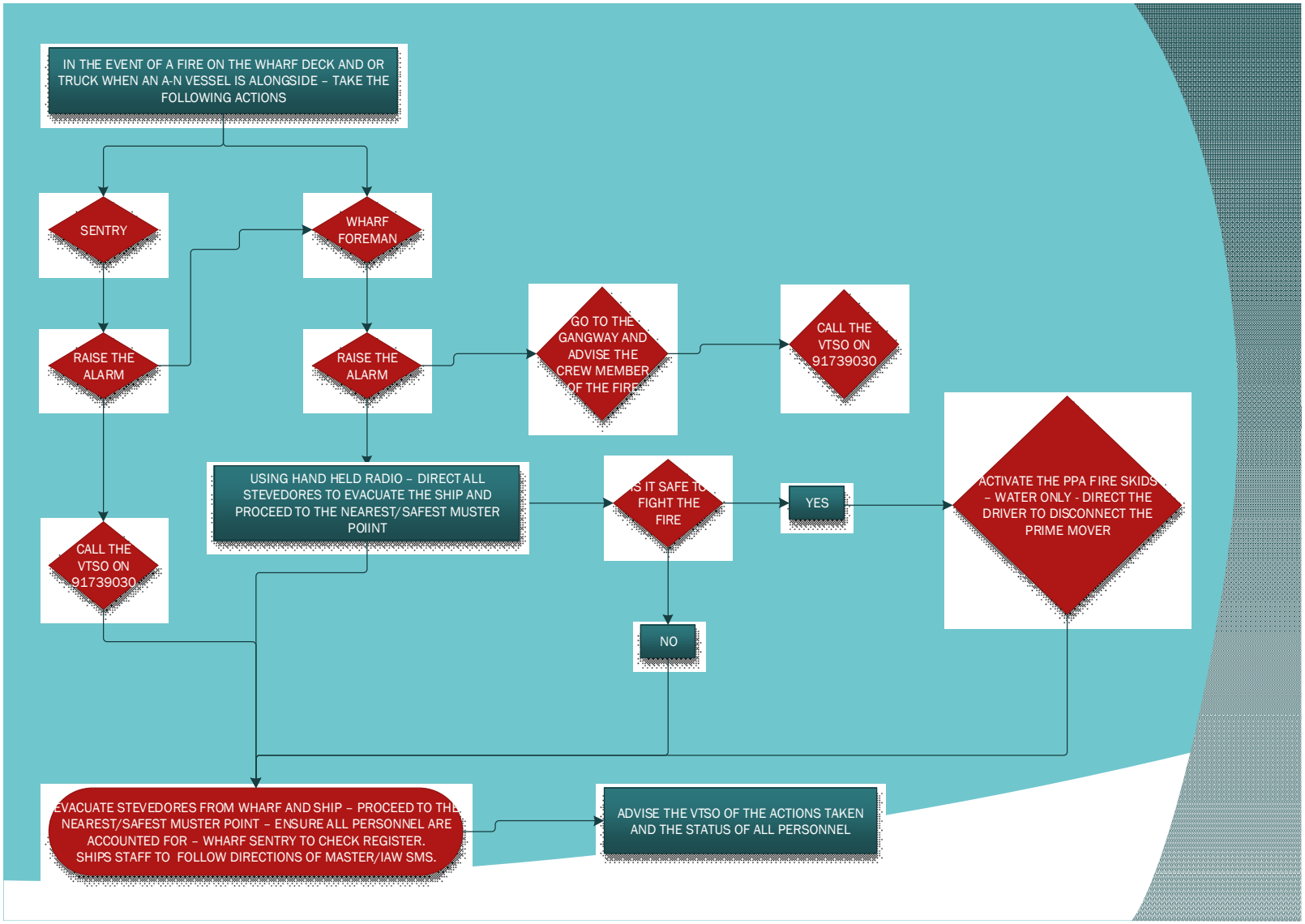
19. Details of witness(s) to incident		
Name Click here to enter text.		
Address Click here to enter text.		
Phone no. Click here to enter text.	Fax no. Click here to enter text.	Email. Click here to enter text.
Name Click here to enter text.		
Address Click here to enter text.		
Phone no. Click here to enter text.	Fax no. Click here to enter text.	Email. Click here to enter text.
Name Click here to enter text.		
Address Click here to enter text.		
Phone no. Click here to enter text.	Fax no. Click here to enter text.	Email. Click here to enter text.

Refer to Department of Mines, Industry Regulation and Safety website for the Dangerous Goods Incident Report Form - http://www.dmp.wa.gov.au/Dangerous-Goods/Reporting-incidents-involving-7640.aspx

APPENDIX 11 - ACTIONS IN CASE OF FIRE




IN THE EVENT OF A FIRE ON A VESSEL BERTHED AT ANOTHER BERTH WITHIN THE PORT WHEN AN A-N VESSEL IS ALONGSIDE – TAKE THE FOLLOWING ACTIONS
SENTRY
WHARF FOREMAN
RAISE THE ALARM
RAISE THE ALARM
GO THE GANGWA AND ADVISE THE CREW MEMBER OF THE FIRE ON-BOARD HE OTHER VESSE
CALL THE VSTO ON 91739030
CALL THE VTSO ON 91739030
IS THE WIND DIRECTION BLOWING ANY SMOKE OR EMBERS AWAY FROM THE A/N VESSEL
YES
IN DISCUSSION WITH THE MASTER – CONSIDER REMOVING STEVEDORES FROM THE HOLDS/CRANE AND CLOSE THE HATCH LIDS
NO
VACUATE STEVEDORES FROM THE WHARF AND SHIP – PROCEE TO THE NEAREST/SAFEST MUSTER POINT – ENSURE ALL PERSONNEL ARE ACCOUNTED FOR – WHARF SENTRY TO CHECK THE REGISTER.
SHIPS STAFF TO FOLLOW THE DIRECTION OF THE MASTER/SHIPS SMS.
ADVISE THE VTSO OF THE ACTIONS TAKEN AND THE STATUS OF ALL PERSONNEL


IN THE EVENT OF A FIRE ON THE WHARF DECK AND OR TRUCK WHEN AN A-N VESSEL IS ALONGSIDE – TAKE THE FOLLOWING ACTIONS
SENTRY
WHARF FOREMAN
RAISE THE ALARM
RAISE THE ALARM
GO TO THE GANGWAY AND ADVISE THE CREW MEMBER OF THE FIRE
CALL THE VTSO ON 91739030
USING HAND HELD RADIO – DIRECT ALL STEVEDORES TO EVACUATE THE SHIP AND PROCEED TO THE NEAREST/SAFEST MUSTER POIINT
IS IT SAFE TO FIGHT THE FIRE
YES
ACTIVATE THE PPA FIRE SKIDS – WATER ONLY - DIRECT THE DRIVER TO DISCONNECT THE PRIME MOVER
CALL THE VTSO ON 91739030
NO
EVACUATE STEVEDORES FROM WHARF AND SHIP – PROCEED TO THE NEAREST/SAFEST MUSTER POINT – ENSURE ALL PERSONNEL ARE ACCOUNTED FOR – WHARF SENTRY TO CHECK REGISTER. SHIPS STAFF TO FOLLOW DIRECTIONS OF MASTER/IAW SMS.
ADVISE THE VTSO OF THE ACTIONS TAKEN AND THE STATUS OF ALL PERSONNEL

APPENDIX 12 – SHIP MASTERS PRE-ARRIVAL SAFETY DELCLARATION FOR AMMONIUM NITRATE VESSELS

This form must be completed by the vessel's Master *no less* than 24hrs prior to arrival at Port Hedland and forwarded to landside.operationseast@pilbaraports.com.au

IT IS THE MASTER'S RESPONSIBILITY TO ENSURE THAT THE BELOW IS A TRUE AND ACCURATE DECLARATION OF VESSEL INFORMATION AND EQUIPMENT STATUS

SECTION 1 - VESSEL DETAILS			
Vessel Name:		LOA:	
Ship Agency at Port Hedland		ETA PHE (time/date):	
Ammonium Nitrate to be discharged/ loaded (tonnes)			

SECTION 2 – SAFETY REQUIREMENTS FOR AMMONIUM NITRATE VESSELS	
Master can confirm that the following requirements will be observed at all times whilst alongside the berth and 24 hours prior to arrival:	
Inspections have been undertaken to ensure that there are no fires onboard.	**Confirm** ☐
Firefighting equipment has been run out and tested.	**Confirm** ☐
No hot works will be undertaken within 24 hours prior to arrival and until after the vessel has sailed.	**Confirm** ☐
The vessel paint lockers are closed and will remain closed 24 hrs prior to arrival and until after the vessel has sailed.	**Confirm** ☐
A fire watch has been setup 24 hours prior to arrival at Port Hedland.	**Confirm** ☐
The vessel will berth starboard side alongside (head out) unless otherwise approved in writing by the Harbour Master.	**Confirm** ☐
There will be "no smoking" on board the vessel, with the exception of the designated smoking area as approved by the vessel's safety management system.	**Confirm** ☐
Engine maintenance or immobilisation will **not** be permitted whilst the vessel is alongside the berth.	**Confirm** ☐
The vessel will remain in a state of readiness to sail from the berth at short notice.	**Confirm** ☐
Vessel firefighting facilities will be kept running on idle throughout the handling operation with hoses able to access all parts of the vessel hold.	**Confirm** ☐
Work on alternate holds, hot work, storing, bunkering, will **not** take place while the holds containing ammonium nitrate are open.	**Confirm** ☐
A gangway watch will be kept at all times whilst the vessel is alongside	**Confirm** ☐
The vessel will display the Flag "B" at all times when alongside the berth and a red light during the hours of darkness.	**Confirm** ☐

Vessel paint lockers and other such areas containing combustible stores will be locked during handling of ammonium nitrate.	**Confirm** ☐
The vessel deck is clear of obstructions and combustibles.	**Confirm** ☐
Other relevant Information:	

SECTION 3 – MASTER'S DECLARATION	
I hereby declare that the above information is true and accurate, and the vessel will comply with all safety requirements for Ammonium Nitrate.	
Masters Name:	
Time / Date:	
Ships Stamp:	