

CAMDEN GAS PROJECT DANGEROUS GOODS AND HAZARDOUS MATERIALS SUB PLAN

AGL Gas Production (Camden) Pty Limited
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Document Control

Dangerous Goods and Hazardous Materials Sub Plan

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1. Introduction

This Dangerous Goods and Hazardous Materials Sub Plan (DGHMSP) has been prepared to supplement the Environmental Management Plan (EMP) for the Camden Gas Project ('the project' or 'CGP').

The DGHMSP is based on the previously prepared and approved Environment Health and Safety Management Plans and the current AGL Energy Life Guard system. More information is available in the EMP.

1.1. Objective

To manage the purchasing, storage, transport, handling and disposal of Dangerous Goods and Hazardous Materials (including waste Dangerous Goods and Hazardous Materials) during construction, operation and maintenance activities so as not to cause pollution of the environment (soil, surface water, groundwater, atmosphere).

1.2. Target

Zero incidents resulting in Dangerous Goods or Hazardous Materials entering the environment or causing harm or injury to personnel.

1.3. Responsibilities

Personnel responsible for implementing this environmental sub plan include the following:

- › Field Environment and Safety Officer responsible for notifying the DECC (EPA) in the event of a pollution event.
- › All Field Team Leaders responsible for regular inspections.
- › Plant Supervisor responsible for daily checks of RPGP Dangerous Goods and Hazardous Materials storage areas and delegation of maintenance works on control measures.
- › Field personnel responsible for handling Dangerous Goods and Hazardous Materials in accordance with this sub plan.

Contractors are responsible for the storage and handling of the Dangerous Goods and Hazardous Materials used by the contractor on the project.

2. Requirements

2.1. Key Licence / Development Consent Requirements

The key licence and development consent requirements relating to Dangerous Goods and hazardous materials are included in Table 1 below:

Table 1 Key Licence and Development Consent

Reference	Requirement
Environment Protection Licence No. 12003	Requirement to undertake licensed activities in a competent manner, including handling, movement and storage of materials and substances.
DA 282-6-2003i (CoC No. 97)	Requirement to store, handle and transport DGs in accordance with Australian Standards and the Dangerous Goods Code and explosives in accordance with the requirements of the DMR (now DPI Minerals).
DA 75-4-2005: 31 (Sch 2)	Requirement for a Hazard Audit.
DA 171-7-2005: 18 (Sch 3)	Requirement for a Hazard Audit.

2.1.1. Key Regulatory Requirements

The key regulatory requirements relating to Dangerous Goods and hazardous materials include those listed in Table 2 below:

Table 2 Key Regulatory Requirements

Legislation/ Policy	Relevance
Protection of the Environment Operations Act 1997	<p>It is an offence wilfully or negligently to cause any substance to leak, spill or otherwise escape (whether or not from a container) in a manner that harms or is likely to harm the environment.</p> <p>It is an offence to pollute waters.</p> <p>Pollution incidents causing or threatening material harm to be notified to the DECC (EPA).</p> <p>It is an offence to cause or permit the emission of any offensive odour from a premises.</p> <p>Waste must be stored in an environmentally safe manner.</p>
Contaminated Land Management Act 1997	<p>Clause 60 Duty to Report Contamination - A person who becomes aware that the person's activities in, on or under land have contaminated the land in such a way as to present a significant risk of harm must, as soon as practicable after becoming so aware, notify the EPA in writing that the land has been so contaminated.</p>

Key Australian Standards / Codes	<p>The Australian Dangerous Goods Code.</p> <p>AS1216: Class Labels for Dangerous Goods.</p> <p>AS1940: The Storage and Handling of Flammable and Combustible Liquids.</p> <p>AS2507: The Storage and Handling of Pesticides.</p> <p>AS3780: The Storage and Handling of Corrosives.</p> <p>AS3833: <u>The Storage and Handling of mixed classes of Dangerous Goods in packages and Intermediate Bulk Containers.</u></p> <p>AS4326: The Storage and Handling of Oxidizing Agents.</p>
Occupational Health & Safety (Dangerous Goods) Regulation 2005	<p>An occupier must consider how to control a risk associated with the storage and handling of dangerous goods where it is not reasonably practicable to eliminate risk.</p> <p>In each area where dangerous goods are stored or handled provision must be made for containment of spills.</p> <p>An occupier must ensure packaged dangerous goods are labelled in accordance with the Australian Dangerous Goods code.</p> <p>An employer must ensure that a register of all DGs is kept and maintained (including Material Safety Data Sheets and risk assessments) and is readily accessible to all employees.</p> <p>An occupier must ensure, so far as reasonably practicable, that dangerous goods at the premises do not inadvertently become unstable, decompose or change to create a different hazard or increase the risk associated with the dangerous goods.</p> <p>Dangerous goods are required to be placarded when stored above 'Placarding' quantities, and quantities notified to WorkCover NSW when stored above 'Manifest' levels (refer to Table 3 below).</p> <p>The CGP does not currently store Dangerous Goods above Manifest levels and does not require a Notification.</p> <p>Placarding requirements are necessary to be implemented.</p>

Table 3 Dangerous Goods Placarding Quantities

Group	Description of dangerous goods	Packing Group	Placarding quantity	Manifest quantity
1	Class 2			
	Class 2.1	Not Applicable	500 L	5,000 L
	Class 2.2 Subsidiary Risk 5.1	Not Applicable	2,000 L	10,000 L
	Other Class 2.2	Not Applicable	5,000 L	10,000 L
	Class 2.3	Not Applicable	50 L	500 L
	Aerosols	Not Applicable	5,000 L	10,000 L
	Cryogenic Fluids	Not Applicable	1,000 L	10,000 L
2	Class 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1 or 8	I	50 kg or L	500 kg or L
		II	250 kg or L	2,500 kg or L
		III	1,000 kg or L	10,000 kg or L

Group	Description of dangerous goods	Packing Group	Placarding quantity	Manifest quantity
		Mixed Packing Groups in a single Class with the quantity of each Packing Group below the specified quantity for the Packing Group.	1,000 kg or L	10,000 kg or L
3	Class 9	II	1,000 kg or L	10,000 kg or L
		III	5,000 kg or L	10,000 kg or L
		Mixed Packing Groups in Class 9 with the quantity of each Packing Group below the specified quantity for the Packing Group.	5,000 kg or L	10,000 kg or L
4	Mixed Classes of dangerous goods where none of the Classes, types or Packing Groups (if any) present exceeds the quantities specified for the relevant quantity in Item 1, 2 or 3 of this Table.	Not Applicable	5,000 kg or L--The quantity applies only if the placarding quantity for an individual Class that is present is 5,000 kg or L.	10,000 kg or L
			2,000 kg or L--The quantity applies only if the placarding quantity for all of the Classes present is 2,000 kg or L or less.	
5	C1 combustible liquids stored and handled with fire risk dangerous goods where none of the Classes, types or Packing Groups (if any) present exceeds the relevant quantities in Item 1, 2 or 3 of this Table.	Not Applicable	1,000 kg or L	10,000 kg or L
6	Goods too dangerous to be transported that are not kept in a laboratory.	Not Applicable	Any quantity	Any quantity
7	C1 combustible liquids in bulk stored and handled separately from other dangerous goods.	Not Applicable	10,000 L	100,000 L
	C1 combustible liquids stored and handled in packages separately from other dangerous goods.	Not Applicable	50,000 L	100,000 L
	C1 combustible liquids in bulk and in packages stored and handled separately from other dangerous goods provided the quantity in bulk is 10,000 L or less.	Not Applicable	50,000 L	100,000 L



3. Areas of Dangerous Goods and Hazardous Material Storage

Dangerous Goods and hazardous materials are stored and or handled in the following areas:

3.1. Rosalind Park Gas Plant (RPGP)

- › Fuels, oils, paints and corrosives stored at Rosalind Park Gas Plant (RPGP) chemical storage sheds.
- › Mercaptan (DG Class 3, Packaging Group 2) stored in 1,050 L cylinder within brick storeroom at RPGP for use as an odorant in the gas treatment process.
- › Triethylene glycol in 205 L drums under teg unit in bunded area at RPGP.
- › Diesel tanks – 800 L on a utility vehicle and 500 L on a purpose fuel trailer.
- › Well drilling/ fracing liquids
- › Gas cylinders containing oxygen and acetylene for welding purposes at RPGP.
- › Nitrogen gas cylinders stored at RPGP metering skid.

3.2. Field Activities

- › Fuels stored during drilling and fracing at new well sites.
- › Well drilling/ fracing liquids.
- › Explosives are handled by a contractor and stored off-site.

4. Control Measures – Dangerous Goods And Hazardous Materials

Activity	Action	Area	
		RPGP	Field
Purchasing	All Dangerous Goods / Hazardous Materials stored on site shall be entered on the CGP Chemical Manifest (including a register, risk assessments and material safety data sheets - MSDS).	✓	✓
	New Dangerous Goods / Hazardous Materials shall be purchased in accordance with the AGL Purchasing Procedure, risk assessment undertaken and MSDS obtained.	✓	✓
Storage, use and transport	All Dangerous Goods / Hazardous Materials shall be stored and where practicable handled within containment facilities (for example, bunded areas, leak proof trays) designed to prevent the release of spilt substances to the environment.	✓	✓
	The storage, handling and transport of Dangerous Goods / Hazardous Materials shall comply with legislation and Australian standards, including but not limited to containment, placarding and segregation from incompatible materials.	✓	✓
	All vehicles and equipment shall be adequately maintained so as to minimise drips/ leaks of Dangerous Goods / Hazardous Materials.	✓	✓
	Due to its stenchant characteristics, Mercaptan (odorant) is handled in accordance with the strictest of protocols (refer to Emergency Response Plan).	✓	
	All storage and handling equipment (including transfer hoses) shall be kept in a well maintained condition.	✓	✓
	Transport of Dangerous Goods to be undertaken under appropriate licence.	✓	✓
Risk Assessment	Job Safety and Environment Analysis (JSEAs) shall incorporate storage and handling of Dangerous Goods / Hazardous Materials and reference the relevant Material Safety Data Sheets (MSDS).	✓	✓
	Prior to commencing construction, operations or maintenance, the planned arrangement of all Dangerous Goods / Hazardous Materials storage areas should be reviewed to eliminate potentially hazardous conditions.	✓	✓



Activity	Action	Area	
		RPGP	Field
Labelling	All Dangerous Goods / Hazardous Materials should be stored in approved containers and properly labelled.	✓	✓
	All packaged dangerous goods must be labelled in accordance with the Australian Dangerous Goods code.	✓	✓
	If unmarked drums arrive on location or if in doubt as to the constituents of a chemical substance, treat as a hazardous, toxic substance until found otherwise.	✓	✓
Training	The workforce induction program shall inform site personnel of the required chemical storage and handling procedures and the required spill prevention and response procedures.	✓	✓
	The MSDS must be read prior to using any substance and available during storage and use of Dangerous Goods / Hazardous Materials.	✓	✓
	Training records are to be maintained by AGL.	✓	
Decanting	Any Dangerous Goods / Hazardous Materials decanted into a second container must be clearly labelled with name and safety risk phrases (for example flammable or toxic).	✓	✓
Disposal	Waste Dangerous Goods / Hazardous Materials, including empty drums and containers, must be stored in assigned storage areas until they are disposed of in accordance with the MSDS.	✓	✓
	Waste Dangerous Goods / Hazardous Materials shall be managed and disposed in accordance with the requirements of relevant legislation and industry standards.	✓	✓
Spill Response	In the event of a spill or leak of Dangerous Goods / Hazardous Materials the safety of personnel and third parties shall be protected as the first priority.	✓	✓
	All spills of Dangerous Goods / Hazardous Materials shall be addressed promptly and stopped at source as soon as practicable and contained to the smallest possible area.	✓	✓
	During operations, project/construction activities appropriate strategies and equipment shall be in place to deal with a spill of all types and volumes of Dangerous Goods / Hazardous Materials to be used on-site.	✓	✓
	Containment and recovery equipment shall include, but not be limited to absorbent materials (for example, pads and straw bales), shovels and sand bag sacks and protective clothing (for example, gloves, overalls, and boots).	✓	✓



Activity	Action	Area	
		RPGP	Field
	Pollution incidents causing or threatening material harm to be notified to the AGL Health Safety and Environment Manager and DECC-EPA as soon as practicable.	✓	✓
	Spilt material shall be recovered as soon as possible, using appropriate equipment.	✓	✓
	Contaminated soil, or spill recovery materials (such as sawdust and absorbent pads) shall be disposed of to appropriately licensed facilities.	✓	✓
	Spill response equipment shall be maintained onsite and replaced as required.	✓	✓
	All spillages involving Dangerous Goods / Hazardous Materials from any part of the CGP are to be treated as toxic substances.	✓	✓

4.1. Contact Details for External Providers

CGP Activity	Company Name	Telephone Contact Number
Spill Notification	Department of Environment and Climate Change	02 4224 4100
Chemical Disposal	Worth Recycling Pty Ltd	02 8558 5100
	Thiess Services Pty Ltd	02 46771910
Poly Drum Recycling	Astron Plastics Pty Ltd	02 9829 1999
Dangerous Goods Training	National Safety Council of Australia	02 9213 6299
Spill Absorbent Supplies	Pirtek (Campbelltown) Pty Ltd	02 4626 2888

5. Monitoring and Reporting

5.1. Monitoring Requirements

- › Daily observance of Dangerous Goods / Hazardous Materials storage areas will be undertaken to ensure their correct management during construction and maintenance works within field operations.
- › Weekly inspections of Dangerous Good/Hazardous Material storage areas at RPGP.
- › It is a requirement to undertake a Hazard Audit every three years or as determined by the Director-General. Hazard audits shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, "Hazard Audit Guidelines". Dangerous Goods and hazardous materials to be included in the Hazard Audit.

5.2. Reporting Requirements

- › Dangerous goods are required to be notified to WorkCover NSW when stored above 'Manifest' quantities (refer to Table 3 above). The CGP does not currently store Dangerous Goods above Manifest levels and is therefore not currently required to notify WorkCover.
- › Pollution incidents causing or threatening material harm to be notified to the DECC (EPA).
- › A person who becomes aware that the person's activities in, on or under land have contaminated the land in such a way as to present a significant risk of harm must, as soon as practicable after becoming so aware, notify the EPA in writing that the land has been so contaminated.
- › The Hazard Audit report shall be provided within one month of the audit, and be submitted to the Director-General.

5.3. Records

Records related to this environmental sub plan include:

- › Weekly Environmental Inspection Checklist.
- › Incident and near miss reports.

6. Administrative

6.1. Site Specific Plans

- › Emergency Plan

6.2. Attachments

- › RPGP Emergency Plan Map
- › MSDS Register

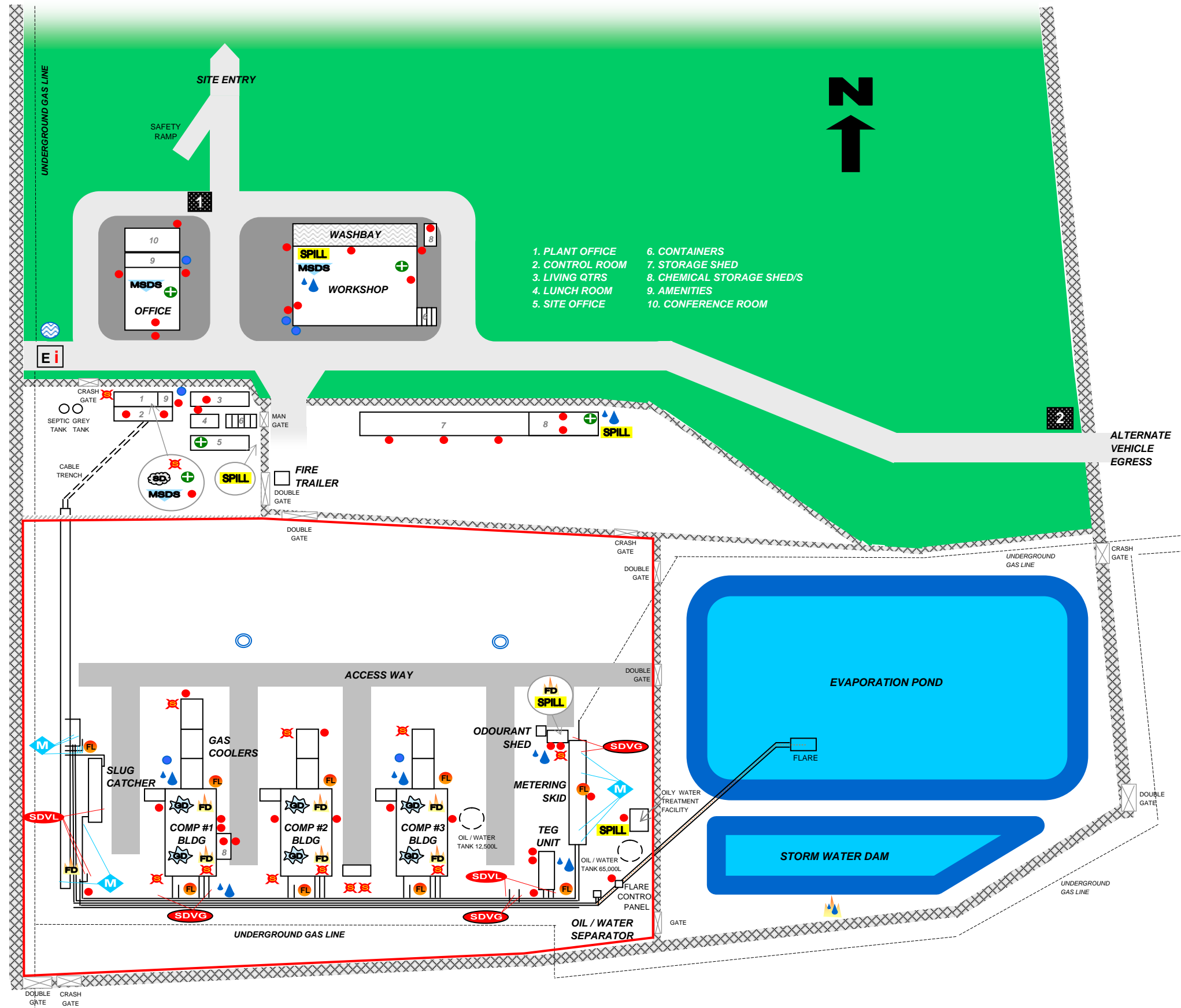
6.3. Definitions

- › Dangerous Goods - "Dangerous goods is defined in the NSW OHS Act 2000 as: "(a) substances or articles subject to a national standard declared by the NOHSC; and (b) any other substances or articles of risk to public safety."
- › Hazardous Materials - Hazardous materials are defined as 'anything that, when produced, stored, moved, used or otherwise dealt with without adequate safeguards to prevent it from escaping, may cause injury or death or damage to life, property or the environment' (NSW Fire Brigades Act 1989).

6.4. Life Guard References

- › HSE Corporate Policy
- › LG-HSE-016: Hazardous Materials Management
- › LG-HSE-CG-023: Material Safety Data Sheets
- › LG-HSE-CG-024: Hazardous Substances and Dangerous Goods
- › LG-HSE-CG-054: Storage and Warehousing
- › LG-HSE-CG-055: Transport of Materials and Goods

ROSALIND PARK GAS PLANT EMERGENCY SITE PLAN



- 1** MUSTER AREA 1
- 2** MUSTER AREA 2 (ALTERNATE)
- Ei** EMERGENCY INFORMATION BOX
- GD** GAS DETECTOR
- SD** SMOKE DETECTOR
- FD** FIRE DETECTOR
- M** MANUAL ISOLATION VALVE MAIN GAS LINES ONLY SHOWN
- SDVL** AUTOMATED EMERGENCY SHUTDOWN VALVE - LIQUID LINE
- SDVG** AUTOMATED EMERGENCY SHUTDOWN VALVE - GAS LINE
- FIRE EXTINGUISHERS
- LIGHTNING POLES
- ⊙** FIRE WATER TANK
- WATER TANK
- Ⓢ** MANUAL EMERGENCY SHUTDOWN (ESD) RED MUSHROOM BUTTON
- SPILL** SPILL KIT
- +** FIRST AID KIT
- MSDS** MSDS FOLDERS
- 💧** SAFETY SHOWER / EYEWASH
- 🔥** FIRE PUMP
- CONTROLLED WORKPLACE
- FL** FUSEIBLE LOOPS

UPDATED: 29.02.08