aggreko Safety for life		STANDARD	Doc. No	AGK-APAC-HSE-STD-217
		HAZARDOUS CHEMICALS AND DANGEROUS GOODS	Rev. No	0
Prepared by	Israel Schorer		Applicable to	APAC
Approved by	Matt Hunter		Date	02/01/2025
			System	HSE

CONTENTS

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1. PURPOSE

This standard describes the methods Aggreko uses to assess, register, manage, use and store hazardous substances.

2. SCOPE

This standard is applicable to all Aggreko APAC workers and shall be read in conjunction with applicable legislation.

This standard applies to Aggreko APAC, including all business groups, hereafter referred to as Aggreko.

The target audiences for this standard are Aggreko management personnel, supervisors and QHSE personnel.

All business units are responsible for implementing the requirements of this standard, which may include using business-specific documentation. Business groups are responsible for updating and maintaining any business-specific documentation that supports this standard.

3. ACRONYMS AND DEFINITIONS

Australian Dangerous Goods (ADG) Code	A Code developed to provide consistent technical requirements for the land transport of dangerous goods across Australia.
Bund	Secondary containment wall of brick, stone, concrete or other impermeable material which is designed to contain spillage and leaks from liquids used, stored or processed above ground and to facilitate clean up operations. Since the bund is the main part of a spill containment system, the whole system (or bunded area) is colloquially referred to within industry as the bund. As well as being used to prevent pollution of the receiving environment, bunds are also used for fire protection, product recovery and process isolation.
Dangerous Goods (DG)	Types of hazardous substances, chemicals or articles that pose a risk to people, property or the environment due to their chemical or physical properties. These are usually classified with reference to their immediate risk and will be listed in the Dangerous Goods Codes i.e. Australian Dangerous Goods Code (ADG).
Hazardous Chemicals	Any substance, mixture or article that satisfies the criteria of one or more Globally Harmonised System of Classification and Labelling of Chemicals (GHS) hazard classes, including a classification in Schedule 6 of the 2012 WHS Regulations. These are classified mainly on the basis of immediate (acute) or long term (chronic) health effects.
Safety Data Sheet (SDS)	Contains information on the identity of the product and any hazardous ingredients, potential health effects, toxicological properties, physical hazards, safe use, handling and storage, emergency procedures, and disposal requirements specific to the chemical. SDS and/or container labels will typically state whether a chemical/substance is classified as hazardous. Hazardous chemicals can also be classified as Dangerous Goods as defined above (in such instances a class label will be prominently displayed).

Worker	Any person undertaking work for or on behalf of Aggreko, including employees, contractors and subcontractors or any visitor to an Aggreko controlled site.

4. PLANNING

4.1. Establish Hazardous Chemicals / Dangerous Goods Registers

Managers ensure a register of all hazardous chemicals and dangerous goods is established for their respective site(s), recorded and maintained.

A hard copy of the register, including a current copy of the SDS for each hazardous chemical and dangerous good shall be maintained in a safe location onsite and readily accessible to authorities in the event of an emergency. A copy of the risk assessment (refer below) for each chemical/substance shall also be filed with the register.

Registers shall be reviewed periodically or immediately following the introduction, removal or significant change to hazardous chemicals/dangerous goods on site.

4.1.1. Safety Data Sheets

Ensure a valid SDS (i.e. with an issue date within the last 5 years) is obtained for all hazardous chemicals and dangerous good within their respective areas;

A valid copy of each SDS shall be readily accessible to workers at or near the point of substance use. A copy of each SDS shall also maintained in the site/project hazardous chemical and dangerous goods register.

Periodically review SDS to ensure all have an issue date within the last five (5) years.

4.2. Storage Of Hazardous Chemicals and Dangerous Goods

Hazardous chemicals and dangerous goods shall be stored in accordance with risk assessment outcomes and SDS recommendations.

The following storage principles shall be adhered to as a minimum:

- volumes are kept as low as reasonably practicable;
- locations are isolated from other work areas (including traffic areas) as much as reasonably practicable;
- appropriate spill containment is provided where significant volumes of substance are stored (e.g. bunding, spill trays);
- conditions (e.g. ambient temperature) do not adversely affect the stability of chemicals/substances;
- bulk containers, including tanks, piping, flanges, fittings etc. are inspected and tested in accordance with Australian Standards (e.g. periodic integrity testing of tanks);
- adverse reactions arising from the mixing of incompatible substances are prevented, including in the event of spillage; and
- hazardous chemicals and dangerous goods are stored in accordance with SDS sheets (i.e. lockable and/or flameproof containers where necessary).

4.2.1. Compressed gases

- Cylinders in use shall be adequately restrained (i.e. chained to a trolley or other appropriate device).
- Full and empty cylinders in storage shall remain upright and restrained to a wall (or similar) in an area away from sources of heat.
- Empty cylinders shall be stored separately to those that are full.
- Cylinders of like gases shall be stored together, except in the case of oxy/acetylene secured to a trolley for use.
- Oxygen and fuel gasses shall be stored separately from corrosive and flammable gases.

4.2.2. Bunding requirements

All liquid hazardous chemicals and dangerous goods will be stored in a bunded area in accordance with statutory Environmental Protection Authority or other regulatory requirements/guidelines applicable to bunding. Refer to figure 1 for an example storage design.

- Bunds will be constructed of impervious material (cinder blocks/bricks and mortar are not impervious and must be sealed).
- Bunds will hold 25% of the total volume stored or 110% (120% in South Australia) of the largest container (or interconnected system), whichever is larger.
- Where a sprinkler system is installed, the bund will hold output from the sprinkler system for a period of at least 20 minutes or a capacity of 133%.
- The storage vessel must be back from the bund wall (or shielded) to prevent jetting of the liquid outside the bund.
- A sump and pump (preferred option) to be available to empty any liquids within the bund. The pump must be locked and only accessible to persons with the competency to appropriately remove the liquid waste.
- Ensure hazardous chemicals are not be stored or pumped through underground piping, unless approval is sought from the Head of ESG and QHSE.
- Check bunds and transfer areas regularly, ensuring drain valves are locked and there are no signs of leaks.
- Spill response material must be immediately available and accessible to the bund area.

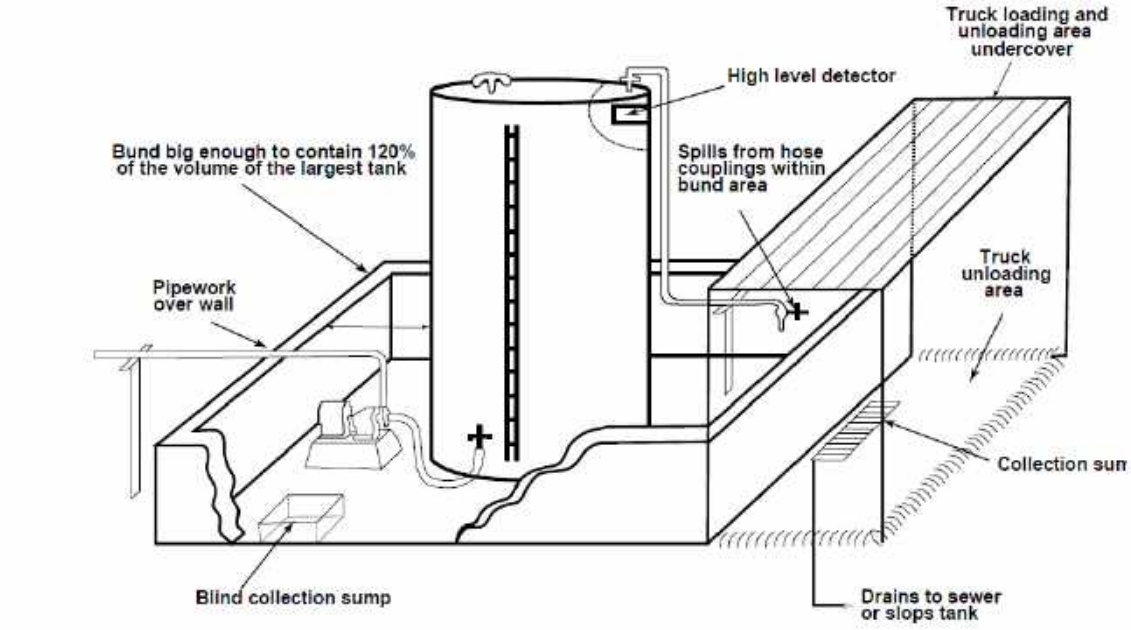

Figure 1

4.3. Spill Management

All work areas that involve the use or storage of hazardous chemicals and dangerous goods must have appropriate spill kits available. These kits must be specific and relevant for the nature of the substances that are used within the work area. A spill kit must be clearly labelled, visible and located in an easily accessible position. All workers must be aware of the location and how to use the spill kit. Spill kits contents should be regularly reviewed. If items are used from the spill kit, arrangements should be made for immediate replacement.

4.4. Safe Use and Handling

In accordance with risk assessment outcomes and SDS recommendations, safe methods of use and handling shall be established for all hazardous chemicals and dangerous goods within their respective areas.

Safe methods of use and handling shall be appropriately documented (e.g. via Work Instructions; SWMS if the chemical/substance is classified as hazardous) and all workers who interact with chemicals/substances shall be appropriately trained in the safe use and handling methods (refer Training and Instruction below).

Due consideration should be given to the following principles in the determination of safe methods for use and handling.

- Appropriate ventilation in the area of use;
- Ignition sources are strictly controlled where flammable substances are used/handled;
- Workers are well protected from harmful exposures that may arise through inhalation of gas/vapour, ingestion, skin or eye contact. This may require specific items of PPE to be worn such as gloves, goggles, respirators or overalls;
- Reaction between incompatible substances is avoided (e.g. ensure containers used to decant substances do not contain residual amounts of reactive substances);

- Appropriate spill catchments are provided (including measures to prevent discharge into the surrounding environment);
- Appropriate emergency facilities, including first aid, fire protection and spill kits, are freely available where required.

4.5. Decanting Of Hazardous Chemicals and Dangerous Goods

Where hazardous chemicals or dangerous goods are decanted/transferred into a second container or mobile tanker for use in the workplace or transport, the following requirements apply:

- The second container must be compatible with the substance (e.g. non-reactive);
- Unless the entire contents are used immediately (and the container thoroughly cleaned), the second container must be labelled with:
  - The product name of the substance; and
  - if DG, the class label and subsidiary risk label.

4.6. Transportation

The following shall be implemented for all vehicles and mobile plant used to transport hazardous chemicals or dangerous goods.

- A current copy of relevant SDS is stored in the vehicle/plant cabin;
- PPE identified in the SDS, SWMS and/or Risk Assessment is available in the vehicle/plant;
- A spill kit is stored in the vehicle/plant (or otherwise remains in close proximity to the vehicle/plant at all times);
- Fire extinguisher(s) of the appropriate class fitted to the vehicle/plant;
- Substance containers shall be appropriately restrained – in the case of four-wheel drives, station wagons and vans, a cargo barrier shall also be fitted;
- Transport of compressed gas cylinders in enclosed vans or vehicles is to be avoided. If unavoidable, the van or vehicle must be sufficiently ventilated to prevent the build up of gases.

Where the quantity transported is above the regulatory Dangerous Goods Code specified limit (e.g. bulk haulage), additional regulatory requirements must be applied. These may apply include:

- An up to date register/manifest detailing type and quantity of product being transported;
- Emergency procedure guide for each product carried;
- A copy of the Fire Ban General Exemption listing.
- Mandatory training and licensing of drivers/operators of vehicles carrying DG are required.

4.7. Disposal

The disposal of hazardous chemicals and dangerous goods shall be undertaken in a safe manner that complies with AGK-APAC-HSE-STD-219 Waste Management.

Containers used for the storage of discarded hazardous chemicals and dangerous goods must be appropriately labelled with:

- "Waste Only – Do Not Use" or similar;
- the product name or general type of waste permissible in the container; and
- class label (if DG).

Hazardous chemicals shall be disposed by licensed waste disposal contractors at licensed facilities (obtain written proof), according to SDS and risk assessment findings and to environment and/or operating licence conditions.

If hazardous chemical waste is to be stored on site prior to disposal, it shall:

- meet the storage requirements as detailed above;
- be secured, where practicable, to prevent use; and
- be clearly marked as waste.

4.8. Spill Response

In the event of chemical spill, workers are to adopt the following 3 'C' process for spill management:

- ***Control*** the source of the spill

  If safe to do so, stop the source of the spill.

  Consider the risk factors of the material such as flammability, toxic vapours, weight of load etc.

  If safe to do so, stop the source of the spill by:

  - closing valves;
  - ensuring containers are upright; and
  - plugging leaks to prevent further release.

- ***Contain*** the spill

  Implement spill management controls to prevent the spill from spreading to unaffected areas. This should be completed by utilising spill management kits and other suitable and available resources e.g. sand.

  Containment shall be conducted in order of priority to:

  - protect human life;
  - protect sensitive environments (protect drains, waterways, sensitive vegetation); and
  - prevent further spread of material.

- ***Clean up*** the spill

  Clean up involves using safe and appropriate methods to remove the spilt material and remove, treat and/or dispose of any other materials contaminated by the spill.

  If a spill has entered a drain/waterway, emergency response should include remediation of affected areas via suction truck etc.

  All incidents should be reported in accordance with AGK-APAC-HSE-PRO-103 Incident Management and Investigation.

Where material harm to the environment may have occurred, the local environmental regulator is to be notified.

5. REFERENCED AND ASSOCIATED DOCUMENTS

Reference	Document Title
AGK-ALL-ALL-HS-08-ST-01	Working with harmful substances
AGK-APAC-HSE-PRO-103	Incident Management and Investigation
AGK-APAC-HSE-STD-219	Waste Management