
SPILL MANAGEMENT

Rockhampton Aerodrome

Queensland, Australia

Rockhampton Aerodrome has prepared this handbook on spill response procedures for airport workers who use, handle, store or transport substances that could contaminate the airport environment.

Rockhampton Regional Council

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CONTACTS

- Rockhampton Aerodrome Reporting Officer – **0409 368 314**
- Rockhampton Aerodrome Operations Supervisor – **0448 619 596**
- Rockhampton Manager Airport – **0439 716 496**
- Airservices Aviation Rescue Fire Fighting Service – **07 4930 7410**

GLOSSARY

Airport – the airport owned and operated by Rockhampton Regional Council, Queensland.

Airport Ramp – any outdoor area, including aprons and hardstands, where aircraft can be positioned, stored, serviced, or maintained, irrespective of the nature of the surface of the area.

Airport Terminal Building – a structure used primarily for air passenger embarking or disembarking, including ticket sales, flight information, baggage handling, and other necessary function in connection with air transport operations. This term includes any extensions used for passenger handling or aircraft flight service functions. Aircraft loading walkways and “mobile lounges” are excluded.

Airside – the area inside the security fence of the Airport which has controlled entry

Apron – the hard surface area in which the aircraft park, unload and reload passengers and cargo as well as refuel, refill water, remove wastes and carry out maintenance on aircraft

Bunding – a constructed impervious embankment or wall, either permanent or temporary, which may surround storage areas, drains etc which is designed to prevent migration of any spill or leak to the surrounding drains or the ground

Environmental Incident – the release of anything that has the potential to contaminate the airport environment e.g. air, water and soil

Hazardous Material – materials which, without adequate safeguards, may contaminate and harm the environment. This includes dangerous goods and many industrial chemicals

Landside – that portion of an airport not designated airside and to which the general public normally has free access

Safety Data Sheet – contains the information on the chemical constituents of a product and their properties, health hazard information, first aid, precautions for use, disposal information and advice to doctors. This information will be requested in the event of a major spill

Operators – includes ground handling agents, refuelling agents, aircraft operators, lease and licence holders

PPE – Personal Protective Equipment – includes gloves, coveralls, goggles and boots which should be worn when attending a spill

Potential Fuel Spill Points – the points on or around the aircraft or airport ramp where fuel can be released. These points include fuelling hydrants, fuel servicing vehicles, fuel tank fill connections, fuel vent openings, and fuel dump valves.

Shall – indicates a mandatory requirement

Should – indicates a recommendation or that which is advised but not required

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BACKGROUND

Fuel, oil solvents, paint adhesives, detergents, herbicides and pesticides, amongst other things, are all classified as Dangerous Goods or Hazardous Substances and are potentially dangerous or harmful to human health and the environment. The costs to clean up environmental pollution can be extremely time consuming and expensive. Prevention of spills is the best management measure and first line of defence.

STORMWATER POLLUTION

0.1 Introduction

For the purpose of this handbook, the airport environment includes all land owned by Rockhampton Regional Council to facilitate the safe and secure operation of Rockhampton Airport which could potentially be impacted by airport equipment and operations including construction equipment and public vehicles.

This handbook contains information on what stormwater and a spill is; whether the spill is major or minor; what to do when a spill occurs; how to minimise the impact and prevent the spill happening in the future.

The handbook should be read in conjunction with your company's own spill response procedures. Encourage others in your company to read this handbook and be familiar with its contents.

Copies of this handbook are available on the Rockhampton Airport website - www.rockhamptonregion.qld.gov.au/CouncilServices/Rockhampton-Airport.

Water is a valuable resource and our use of water for drinking, farming, fishing and recreation can be threatened by discharge of contaminants.

The airport environment has large areas of hard surfaces such as parking areas, runways, taxiways and aprons where there is the potential for liquid spills and leaks of oil, fuel, effluent and other chemicals.

If these spills are not contained and cleaned up, then contaminants can pose a significant risk to groundwater and can flow into the stormwater drains and out into Lion Creek, Crescent Lagoon, Murray Lagoon and Lotus Lagoon and into the Fitzroy River.

Liquid spills at the airport are not only harmful to the environment, but can also pose a serious risk to the safety of people and property and damage pavement.

What Is Stormwater?

The stormwater system is designed to prevent flooding by collecting rainwater from roofs and paved areas of ground.

On its way to the gutter and the stormwater drain outside your hangar, apron or building this rainwater picks up pollutants and contaminants including litter, cigarette butts, animal excrement, dust, plant materials, petrol, oil, lead and other metals or materials left behind on aprons, car parks and roads.

The water then travels through a system of underground pipes and open drains and is released directly and untreated into the various water bodies surrounding the aerodrome and eventually, in some instances, into the Fitzroy River. So whatever enters that drain outside your hangar, apron or building – whether it's poured in intentionally or washed down with rainwater – enters our natural waterways in virtually the same untreated condition.

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The Law and What This Means For You at Rockhampton Aerodrome

The Airports (Environment Protection) Regulations 1997 require operators on airports to take all reasonable and practicable measures to prevent pollution and, if prevention is not possible, to minimise pollution.

The Work Health and Safety (National Uniform Legislation) Act and Regulations apply to the management of Hazardous Materials (i.e. fuels, oils, solvents and other chemicals) and require people using and storing these products to make provision for:

- containment of spills and
- response to, and clean-up of, spills that occur

Operators at Rockhampton Aerodrome must therefore:

- so far as is reasonably practicable, that where there is a risk of a hazardous chemical spill or leak, provision is made for a spill containment system that contains the spill or leak, and any resulting effluent
- the spill containment system does not create a hazard by bringing together different hazardous chemicals that are not compatible
- the spill containment system provides for the clean-up and disposal of a hazardous chemical that spills or leaks, and any resulting effluent
- so far as is reasonably practicable, that containers of hazardous chemicals and any associated pipe work or attachments are protected against damage caused by an impact or excessive loads

SPILL RESPONSE

What is a Spill?

It is the spillage of any substance that is likely to contaminate stormwater or natural ground.

Substances may include, but are not restricted to:

- oils and fuels
- toxic metals
- chemicals (detergents)
- sediment (earthworks)
- organic wastes (domestic sewage and plant and animal products)

A minor spill – covers less than 2m² and can be contained and cleared up by the person who created the spill without the assistance of Rockhampton Aerodrome Operations.

Rockhampton Aerodrome Operations expects you to report the spill immediately to the Aerodrome Operations Supervisor, even if you did not create the spill.

The person who creates or finds a minor spill is expected to direct others away from the spill.

A major spill – is any spill which is greater than 2m². A major spill should be reported immediately to the ARFFS and Aerodrome Operations Supervisor.

Responsibilities

Rockhampton Airport operators are responsible for spill notification, containment, control, clean up and disposal of waste materials for operations in which their company was involved. All operators are required to inspect the parking bay for spills or pavement damage immediately following an aircraft operation or completion of aircraft refuelling or maintenance.

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In the case of a major spill, the ARFFS will attend to monitor the spill for possible ignition. It is not the role of the ARFFS to assist with wash down of pavements or clean up of the spill.

Remember Safety Comes First

Call the Aerodrome Operations Supervisor immediately if you cannot contain the spill, don't know what has been spilt, the spill material has entered a stormwater drain or if the material spilt is toxic.

Review the relevant Safety Data Sheet (SDS) for the spilt material. The SDS will have specific instruction on how to deal with spills as well as first aid information.

Use appropriate Personal Protective Equipment (PPE) when managing spilt material and let experts deal with toxic materials.

Spill Response Procedures

All operators at Rockhampton Aerodrome must take the following action in the event of a spill:

- **Immediately provide a verbal report to Airport Operations for all spills.**
- **Ensure the safety of people** – Move people, and equipment if it is safe to do so, from the immediate vicinity of the spill.
- **Assess the spill** – Establish whether you have the right equipment and sufficient quantities to deal with the material spilt.
- **Assess the location** – Establish whether there are any drains nearby that need protection and determine whether any material has entered the drains.
- **Control the spill** – Stop the spill from spreading by placing absorbent material in a down-slope position and by blocking stormwater inlets.
- **Clean up the spill** – Apply absorbent material, sweep up residue and place it in a container for disposal. If soil has been contaminated, dig up the affected soil and place it in a container for disposal.
- **Dispose of contaminated spill response material or soil to an appropriately licensed waste facility.** Retain a copy of the waste disposal certificates for your records.
- **Report the spill** – A written incident report must be submitted within 24 hours to Aerodrome Operations for all spills. **RRC personnel must record all spill incidents in Riskware within 24 hours of becoming aware of a spill occurring.**

Controlling a spill

If possible, position yourself upwind of the spill. Ignition sources must be turned off as soon as possible, especially if you don't know the nature of the spill. Move away from the fuel source before switching any ignition sources off.

Examples of ignition sources are:

- cigarette lighters
- portable radios
- mobile phone/pager
- camera flashes
- safety matches
- motor vehicles

If it is safe to do so, turn leaking valves and pumps off to stop further leakage. An **Emergency fuel stop button is located near Bay 4** to stop uncontrolled aircraft refuelling operations.

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If the size of the spill allows, place drip trays under any leaking equipment.

Should it be required, an emergency shower and eyewash station is available at the front of the RPT apron.

Containing the spill – Minor Spill

Absorbent materials absorb liquid spills to prevent or minimise the amount of spill entering stormwater drains, reduce pavement damage and provide a safer working environment. Absorbent materials may include absorbent socks, booms, bunds and mats.

Airport operators should have their own emergency spill kits for cleaning up minor spills. Gear that should be contained in a spill kit is listed on page 8.

Containing the spill – Major Spill

Action as per a Minor Spill and contact ARFFS and the Aerodrome Operations Supervisor immediately.

Fuel Spill

NOTE: ARFFS has requested that, regardless of the spill size and as a precaution, they should be immediately advised of an AVGAS spill, particularly if the spill has flowed under an aircraft.

In the event of a fuel spill the following actions must take place:

- The ground handling coordinator or fuel agent should STOP the refuelling operations, advise the Captain, call the ARFFS and the Aerodrome Operations Supervisor.
- Based on the severity of the spill and advice of fire services evacuate all persons from the immediate area.
- Mobilise all available firefighting equipment as standby protection until the arrival of the airport emergency services. Control the movement of unauthorised personnel and equipment into the area.
- As far as possible, restrict all activities inside and outside the spill area to reduce the risk of ignition.
- All electrical equipment in use during the fuelling operation must be switched off immediately.
- Unload the Ground Power Unit (GPU) and shut it down. Do not start the GPU until the spilled fuel is removed and there is no further risk of spilled fuel or vapours. Emergency services will make this call.
- Normal operations must not be resumed on the aircraft or any engines started before the person in charge of the emergency determines it is safe to continue.
- If fuel is spilled on any load, then such items are NOT TO BE LOADED into the aircraft.

Sewage Spill

Major sewage spills should not be handled due to health reasons. The ground handling agent is responsible for managing this issue. Sewage spills are to be reported immediately to the Aerodrome Operations Supervisor.

Cleaning up a spill

Personal Protective Equipment (PPE) is to be worn when handling sewage, fuel, oil and hazardous substances. PPE including gloves, goggles and disposable coveralls are available in the spill kits. All airport staff shall also comply with the airport minimal PPE requirements and their company's PPE Policy and/or procedures.

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Use absorbent material to contain the spill to prevent or minimise the amount of spill that will damage pavement, create a safety hazard or pollute stormwater drains.

Operators will be requested by Airport Operations to clean the ground surface after the absorbent materials have absorbed most of the spill if the pavement is slippery.

Prior to moving items of plant/equipment that have been involved in a spill, measures must be taken to ensure the plant/equipment is no longer leaking to safeguard against the spill being traversed to other locations on the airport.

Disposal of spill waste

Depending on the nature of the spill, it may produce hazardous waste. All saturated absorbent material must be put in purpose-built sealed plastic bags to prevent the material from leaking. Dispose of used absorbent material in accordance with regulatory requirements (fuel/oil/solvent can be placed in general waste bins but sewage must be treated as hazardous waste, placed in dedicated plastic bags and collected by a licensed waste contractor for disposal).

All contaminated absorbent material requires disposal at an approved disposal facility.

Reporting Spills

All spills MUST be reported.

Minor Spills - (less than 2m²) call the Aerodrome Operations Supervisor.

Major Spills - (greater than 2m²) call the Aviation Rescue & Fire Fighting Service and the Aerodrome Operations Supervisor.

An Incident Report Form, available from Aerodrome Operations, must be completed and submitted within 24 hours. The spill reporter is required to provide the following minimum information:

- Spill substance (eg. hydraulic oil, sewage, Jet A1 fuel)
- Estimated spill volume in litres
- Date and approximate time of spill
- Location on airport
- Any clean-up undertaken and materials used
- Any impacts to soil or stormwater
- Cause of spill, i.e. equipment failure, incorrect procedure
- Items for rectification, i.e. equipment out of service until inspected/repaired, re-training of staff, procedure review.

Spill Response Equipment

All operators on airport are required to maintain sufficient response equipment to manage the type and size of the spill that may occur at their premises, or in association with their work.

There is a variety of spill response equipment. The type and quantity of fuel, oil and chemicals you use and store at your facility will determine the type and quantity of spill response equipment you require.

Spill response material designed to target specific substances is commercially available. For example absorbent mats and booms designed to absorb hydrocarbons (fuel and oil) and allow water to pass through is available.

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Spill Response Equipment can include:

- Personal Protective Equipment (PPE) – gloves, coveralls, goggles and boots
- Absorbent materials such as bunds and booms, socks and mats etc
- Absorbent Granules
- Stormwater Drain Caps
- Portable Bunds
- Disposal bags or containers
- Brush and dustpan

In facilities where small amounts (<20L) of Dangerous Goods and Chemicals are used and stored, absorbent substances such as ChemSorb or saw dust are sufficient for spill response.

Make sure your emergency spill kits are in accessible places and everyone knows where they are. Place your emergency telephone contact sheet in places it will be needed e.g. with the kit or by the phone.

Make it one person's responsibility to maintain the kits and replace equipment after a spill. You can assemble your own emergency spill kits or buy standard kits.

To assemble your own spill kits you can buy a wheelie bin for each high risk area, fill it with what you need and put a copy of your spill procedure and emergency telephone numbers on it.

PREVENTING STORMWATER POLLUTION

Preventing a Spill

Every facility at the airport that handles, stores, uses or transports substances that could contaminate the environment or endanger people and property needs to be proactive in preventing spills.

Prevent spills by:

- providing the correct storage equipment such as drip trays for collecting substances that may spill or leak into the environment
- ensuring all staff know how to handle, store, use and transport materials and substances properly
- knowing where the stormwater and sewer drains are and ensuring only rain goes into the stormwater drains
- at all times keeping your site clean and tidy
- being prepared to cope with a spill by providing equipment and staff training in the correct use of spill procedures and equipment
- setting up internal systems so that staff can protect our environment

Water is a valuable resource and our use of water for drinking, farming, fishing and recreation can be threatened by discharge of contaminants.

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SPILL RESPONSE FLOW CHART

