

School Bus Safety

Risk Management for Bus Operators

December 2014



Introduction

Risk Management is at the core of each bus operator's Safety Management System. Risk management involves taking active steps to identify and control those things ("hazards") that could cause harm to passengers, employees and the public.

Importantly, risk management needs to focus on the hazards in *your* business and the process needs to be *ongoing*, and not simply at the time of your Annual Self-Assessment Report.

This brochure provides school bus operators with simple guidelines to help minimise risks and hazards. This brochure (prepared in conjunction with BusNSW) provides school bus operators with simple guidelines to help minimise risks and hazards.

Types of Hazard

Hazards in a bus service can arise from a variety of sources which include;

- Employees (eg a driver turning up for a shift unfit for duty)
- Passengers (eg school children misbehaving on the bus)
- Vehicles (eg an older bus with minimal safety features)
- Bus Routes (eg narrow, winding roads)
- Environmental conditions (eg an area prone to flooding or ice).

Examples of some common hazards faced by school bus operators are listed in the table below. However, it is important to note that these are examples only, and each individual operator is required to review their operations to ensure that the issues of particular concern in their bus operation are monitored and addressed.

Source of Hazard	Hazards
Employee-related	<ul style="list-style-type: none"> • Fitness/medical complaints of drivers • Loss of Licence/Driver Authority • Dangerous or hazardous driving • Drug and/or alcohol consumption • Fatigue (including that resulting from secondary employment)
Passenger/public-related	<ul style="list-style-type: none"> • School children misbehaviour (driver distraction) • Violent/aggressive passengers • Children failing to wear seat belts • School children getting on/off the bus • Parents dropping children off on the opposite side of the road to where the bus stops
Vehicle-related	<ul style="list-style-type: none"> • Vehicle visibility • Doors that have the potential to trap passengers • Risk of on-board fires (eg gas buses) • Bus not suited to route
Route-related	<ul style="list-style-type: none"> • Steep or winding roads • Unpaved or narrow roads • Trucks and other heavy vehicles on the bus route • Bus Stops in high traffic zones • Interchanges servicing multiple buses
Environmental	<ul style="list-style-type: none"> • Ice or snow on the road • Morning fog and poor visibility • High wind and rain • Areas prone to flooding • Kangaroos and other animals on the road

Table 1: Examples of some of the hazards faced by rural school bus operators

Four Steps to Managing Risks

1. IDENTIFY HAZARDS

Identifying the hazards that are a particular risk to your bus service involves looking at past experiences and thinking innovatively about what could go wrong in the future. A number of systems can help you to identify hazards. For example:

- **Consultation/communication** with bus drivers (who are usually aware of significant on-road risks)
- **Bus Incident Database** (this can provide the operator with data on the types of incidents that have occurred in the past)
- **Accident and Complaints Registers** (which are kept for Contract purposes but can provide another source of hazard data)
- **Inspections** of vehicles, workshop and the depot
- **Audits** (both your own and the three-yearly independent BOAS audit)
- **Information Alerts** from Roads and Maritime and BusNSW on particular safety issues
- **OTSI reports** and media articles.

2. ASSESS THE RISK

When you include a hazard on your Risk Register, you need to assess the risk of that hazard. Assessing the risk will enable you to prioritise, allowing you to determine the most serious hazards first. Risk is measured in terms of both:

- **Severity** (eg has the hazard the potential to kill or only a minor injury?)
- **Likelihood** (eg how likely will this hazard arise: almost never or often?).

A hazard which is likely to occur and may result in death or serious injury is obviously a greater problem than one which is unlikely to occur and may only result in a bump or scratch. The Risk Matrix (*Appendix B*) will provide assistance in the assessment/prioritising process.

3. CONTROL THE RISK

You need to determine and implement control measures for hazards you have identified. This is best done in consultation with your staff, including drivers. Controls could include an engineering control (eg including a bull-bar on a bus to lessen the impact of an animal strike), driver training or procedures, and could include liaising with other stakeholders to find a solution (eg discussing dangerous road conditions with the local Council or Roads and Maritime).

4. DOCUMENT AND REVIEW

BOAS requires that your process for managing risks needs to be documented. A **Risk Register** is a mechanism for recording all of the necessary information on one simple table. A Sample risk register is provided in the Safety Management System (SMS) Handbook. *Appendix A* shows what your completed Risk Register might look like.

Importantly, risk management needs to be an ongoing process, so someone in your organisation should be assigned responsibility for monitoring the progress of controls listed in the Risk Register and for including new hazards on the Register as they arise.

Appendix A

Sample Risk Register

Hazard	Likelihood	Severity	Risk Rating	Recommended Controls	Responsible Officer
Heavy Vehicle Traffic along bus route	Likely	Death or permanent disability	1	Liaison with Truck company to see if HV route or timetable can be varied (eg outside school bus times) Liaison with local Council/Roads and Maritime to develop solution Communication with HV driver (eg via CB radio if available)	Depot Manager Depot Manager Bus Driver
Sudden movement of children at Bus Interchanges	Likely	Death or permanent disability	1	Liaison with other bus operators to synchronise bus arrivals/departures Training of bus drivers in safe pick-up/drop-off procedures Liaison with schools/P&CA to highlight problem	Depot Manager Driver Supervisor Depot Manager
Drug and Alcohol Consumption	Unlikely	Death or permanent disability	1	Implementation of Drug and Alcohol Program including: Information and Training Testing Procedures Remedial Procedures Drug and Alcohol Policy	Managing Director Training Officer Test Supervisor Supervisors Managing Director
Animal strikes	Very likely (in some areas)	Death or permanent disability	1	Drivers to reduce speed when driving in early mornings, late afternoons and at night to avoid animal strikes Buses to be fitted with Bull Bars & driving lights	Driver supervisor to brief drivers Workshop foreman
Icy Roads	Unlikely (a few days each year)	Death or permanent disability	2	Drivers made aware of the need for care when travelling in potential areas of ice. In particular, drivers to take note of advisory signage	Driver supervisor to brief drivers
Fog	Unlikely	Death or permanent disability	2	Drivers to reduce speed when driving in foggy conditions Buses to be fitted with fog lights	Depot Manager to brief drivers Workshop foreman
School children misbehaviour (including not wearing seat belts)	Likely	First aid	3	School/parent liaison and formal warning issued Reporting misbehaviour via the Student Misbehaviour Database Training of drivers in School Student Code of Conduct De-brief for any affected drivers	Driver Supervisor Driver Supervisor

Date Last Reviewed: _____

Reviewed By: _____

Appendix B

Risk Assessment Matrix

The Risk Matrix below can be used to assess the risk of identified hazards.

The Risk Matrix assigns a numerical priority (from 1 to 6) for each hazard eg a hazard that is very likely and could potentially kill gets a “1” priority; a hazard which is very unlikely and would result in first aid gets a “6” priority. This priority or risk rating should be recorded on the Risk Register.

	Likelihood: How likely is it to be that bad?			
Severity: How severely could it hurt someone or how ill could it make someone?	Very Likely Could happen anytime.	Likely Could happen at some time.	Unlikely Could happen but very rarely.	Very Unlikely Could happen but probably never will.
Kill or cause permanent disability or ill health.	1	1	2	3
Long term illness or serious injury.	1	2	3	4
Medical attention and several days off work.	2	3	4	5
First Aid Needed.	3	4	5	6

Risk Rating: **1-2: High Risk (Action now)**
 3-4: Moderate Risk (Action soon)
 5-6: Low Risk (Action when practicable)

Further Help:

In addition, a number of tools are available to bus operators to assist them in managing risks. These include:

- [The SMS Handbook \(Roads and Maritime\)](#)
- [Road Safety Around Schools \(TfNSW\).](#)