

Always

Be




Careful



The Signal

December 2007

For Distribution To:

-  Transportation Supervisors
-  Secretary-Treasurers
-  Superintendents



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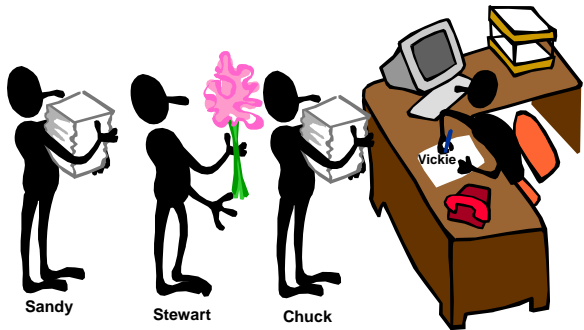
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UPDATE: SEAT BELTS IN SCHOOL BUSES

In the United States, the National Highway Traffic Safety Administration (NHTSA) recently announced a Notice of Proposed Rulemaking (NPRM) regarding seat belts in school buses. In brief . . .

- the proposal requires that all new small buses (having a gross vehicle weight rating of 4,536 kilograms [10,000 pounds] and under) be equipped with three-point belts within three years of the new rule taking effect, replacing the current lap-belts-only requirement.
- for large buses, the proposed rule would, for the first time, provide federal seat belt standards for school districts that make the decision to add them. The federal government would allow school districts to use federal highway safety funds to cover the additional cost of equipping buses with seat belts to encourage greater use.
- beginning one year after the rule goes into effect, all new school buses would be equipped with 24-inch seat backs, an increase from the current 20 inches.

Continued on Page 8 . . .



Who's Who At PTU . . .

As most of you know, Winston Ruddick retired from PTU in December 2006. In May 2007, Stewart McKenzie assumed the position of Field Officer and is working out of the Rivers office. Stewart was formerly employed with the Mountain View School Division and brings with him several years of experience in the school bus industry. Please join us in welcoming Stewart to PTU.

Listed below is contact information for all PTU staff:

Winnipeg Office – 507-1181 Portage Avenue; R3G 0T3

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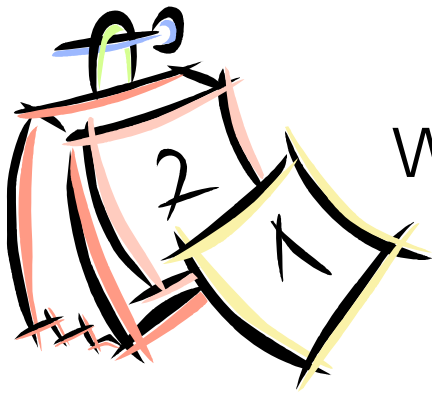
**AFTER HOURS
EMERGENCY
PHONE NUMBER:**

204 – 470 – 4818

PLEASE NOTE:



All correspondence pertaining to school bus accidents and school bus driver certification should be directed to the Winnipeg office.



What's Been Happening At PTU . . .

A lot has taken place since our last edition of The Signal. Here's a recap of 2007 events . . .

FEBRUARY – SCHOOL BUS DRIVER TESTING INFORMATION SESSION

On February 9th a School Bus Driver Testing Information Session was held at Canad Inns Polo Park. The session focused primarily on changes and updates to Driver and Vehicle Licencing testing requirements. Fifty-four transportation supervisors and school bus driver instructors attended.

MARCH – SCHOOL BUS MAINTENANCE SEMINAR

The 2007 School Bus Maintenance Seminar was held in Winnipeg on March 27 and 28 and in Brandon on March 29 and 30. The sessions were attended by 59 and 38 participants respectively.

Seminar presenters/topics included: Blue Bird Vision; Ricon wheelchair lift; Allison transmission; Mercedes Benz engine; Caterpillar engine; PTU information session; Thomas/Freightliner; and Shell Oil products.

Participant feedback can be found in Appendix A.

APRIL - JUNE 2007 – SCHOOL BUS DRIVER INSTRUCTOR'S SEMINAR

In the Fall of 2006, ten participants completed Phases I and II of a School Bus Driver Instructor's Seminar. These two phases were repeated in April/May 2007 with eight participants.

Phase III was held for both groups in June 2007. Their comments are included in Appendix B.

Article continued on the next page . . .

Congratulations are extended to the following individuals who completed the course:

Ron Harkness –
Brandon School Division

Shawn Kent; Penny Spence –
Brokenhead Ojibway Nation

Doug Murdock –
Fisher River Cree Nation

Helen Guenter –
Garden Valley School Division

Gary Paulin –
Interlake School Division

Valerie Einarson –
King Transportation Ltd.

Brett Harris; Shelley Magnifico –
Louis Riel School Division

Donna Storoschuk –
Pembina Trails School Division

Daryl Jones; Larry Wiebe –
Pine Creek School Division

Charmaine McEvoy –
River East Transcona School Division

Felix Desjarlais –
Sandy Bay Ojibway First Nation

Mary Veldman –
Sunrise School Division

Barry Schaworski –
Swan Valley School Division

Cameron Penner –
Western School Division

OCTOBER – SCHOOL BUS DRIVER'S HANDBOOK REVIEW SEMINAR

The Handbook Review Seminar held at the Canad Inns Polo Park October 9th and 10th was extremely helpful in development of the new edition. Judging by the evaluation results (Appendix C), participants appreciated the opportunity to provide input and discuss various issues that need adjustment and/or clarification. PTU would like to express its appreciation to the 47 participants who took the time to attend the seminar.

It should be noted that the information collected during the two-day seminar is being considered for inclusion in the final draft of the new School Bus Driver's Handbook. It is anticipated that a draft copy will be distributed to all school divisions in the new year. Comments on the draft will be accepted until a pre-determined date prior to publication of the revised Handbook.



School Bus Orders & Other Issues . . .

2007 SCHOOL BUS ORDER

Thomas Bus Manitoba was awarded the contract to supply 36, 54, 66, 72, and 78 passenger regular and wheelchair school buses. Blue Bird was awarded the contract to supply 48 passenger buses. In total, nine school divisions ordered 35 Thomas C2 Saf-T-Liners, and five school divisions ordered 10 Blue Bird Visions. As of December 1, 2007, a number of these units have been inspected and delivered to school divisions.

2008 SCHOOL BUS ORDER

It is that time of year again when PTU, on behalf of the Central Tender Purchase Committee (CTPC) invites all school divisions in the province to participate in the school bus central tender process. School divisions have the option to participate in the central tender or to purchase new school buses on their own. Included with the invitation to participate are forms for completion indicating the school division's decision to opt in or opt out of the central tender process.

School divisions have been requested to submit their reply forms by Friday, January 18, 2008.

SCHOOL BUS ACCIDENT REPORTS

Appendix D contains a variety of summary tables detailing 2006 school bus accidents. PTU would like to thank school divisions for submitting their accident reports on a timely basis.

Please note that, while we appreciate receiving school bus accident reports as soon as possible after an incident, there is no such requirement for "nil" reports. "Nil" reports can be submitted to PTU throughout the year in whatever timeframe works best for you and your staff.

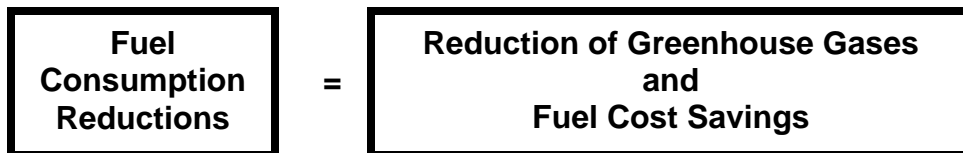
Both the accident and nil report forms are available on PTU's website – www.edu.gov.mb.ca/k12/ptu in the "Forms" category.

NO IDLE POLICY SURVEY

PTU conducted a survey of all school divisions in the province to determine the effectiveness of the voluntary “no idle policy” program. Results of the survey indicate that only five of the 36 school divisions operating school bus fleets (including school division-owned and privately-owned vehicles), have established a division-wide no idle policy.

A number of school divisions reported promoting no idle practices, and post “No Idle Zone” signs on school grounds; however, there is no mechanism in place to monitor compliance with the no idle warning. Most of the no idle policies and practices have been established over the past two years but due to lack of monitoring and not recording fuel consumption reductions, no information is available to demonstrate the benefits of no idle.

Nevertheless, there is a simple calculation:



When considering that “green” programs such as biodiesel and hybrid vehicles – designed to reduce hydrocarbon emissions – have logistic, technological, and operational cost associated with their use, why not implement a comprehensive no idle policy instead at no cost to the fleet’s operation? Why look only for “high tech” fuel cost reduction solutions when a simple no idle policy can generate fuel cost savings without additional expenditures?

Let’s face it. We need to wake up and realize that bad habits can be broken and there’s no better time to change than right now.

Remember: Idling Gets You Nowhere.

If you require additional information on no idle policies and practices or need assistance in designing a no idle program, please contact either of the PTU offices in Winnipeg or Rivers.

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Regulations, Amendments, & Updates . . .

CANADIAN STANDARDS ASSOCIATION (CSA) – NEW SCHOOL BUS STANDARD

The effective date of CSA's new School Bus Standard D250-07 was November 1, 2007. This means that new school buses manufactured as of November 1, 2007 must be built in compliance with the D250-07 Standard. Updates and changes to the Standard are outlined in Appendix E.

CRS ANCHORS IN NEW SCHOOL BUS VEHICLES

Child restraint system (CRS) seat anchors are now part of school bus seats in all 2008 model year school buses. Transport Canada requires that school buses be equipped with CRS anchors as follows:

School buses up to 24 passengers – 2 anchor locations

School buses 25-65 passengers – 4 anchor locations

School buses 66 passengers and larger – 8 anchor locations

It should be noted that Manitoba has adopted a “phase in period” of 10 to 12 years before mandating the use of CRS in school bus vehicles. Once the Manitoba school bus fleet is adequately equipped with CRS anchors to accommodate the need, the Department will consider mandating the use of CRS in school buses. In the interim, CRS may be used in school buses equipped with appropriate anchors, at the discretion of the local school division.

UPDATE: SEAT BELTS IN SCHOOL BUSES

(Continued from Page 1)

It should be noted that NHTSA is not mandating three-point belts in large school buses but is providing federal standards for seat belts for school districts that make the decision to add them.

NHTSA also stated that installing current lap/shoulder belts on large school buses would reduce their passenger carrying capacity. If children were diverted to other means of transport to reach school (such as transport by smaller, private vehicles, walking, or biking), the belts on the buses would actually result in an overall detriment to pupil transportation safety due to the children displaced from the large school buses having to find less safe modes of transportation to get to or from school or related events. Thus, the requirement for lap/shoulder belts on large school buses is not being proposed. It is recommended that providers ascertain whether installing lap/shoulder belts would reduce the number of children that are transported to school on large school buses.

Transport Canada has indicated that poorly fitted, incorrectly worn three-point seat belts could result in injuries which would negate the benefits of wearing them. Transport Canada officials are of the opinion that efforts should be directed towards improving compartmentalization. The technology exists to permit the timely introduction of interventions that would benefit all children. As such, Transport Canada is conducting research to investigate how best to optimize the passive protection of children in school buses. The research includes an investigation into improving sidewall impact protection; the feasibility of introducing curtain technology to prevent ejection from the seat compartment; as well as seat and suspension design changes to reduce vertical displacement and ejection from the seat. Crash tests are also being conducted to design a representative crash pulse for the development of a sled test simulation for use in product design and evaluation.

In view of this information, it appears that, in Canada, there is no intention to federally mandate seat belts in school buses in the immediate future.

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In the New Year . . .

JANUARY TO MAY 2008 – CALENDAR OF EVENTS/TENTATIVE EVENTS

Month	Event
January/ February	Phases I and II – School Bus Driver Instructor’s Seminar A notice of tentative dates will be sent out in early January. If sufficient interest is indicated, and depending on the number of participants who respond, the seminars will be held in either Winnipeg or Brandon. (A group of 10 or fewer would probably be held in Brandon; a group larger than 10 would probably be held in Winnipeg.)
February 13	Tentative PTU information dialogue session with transportation supervisors and school bus driver instructors to be held in conjunction with the MASBO Transportation Conference being held in Portage la Prairie, February 14-15.
March	Tentative school bus ridership seminar
April 1 - 2	Maintenance Seminar – Brandon
April 3 - 4	Maintenance Seminar – Winnipeg
April 20 - 23	Canadian Pupil Transportation Conference – Victoria, BC www.cptc2008.ca
May	Tentative Phase III – School Bus Driver Instructor’s Seminar



*Chuck, Sandy, Stewart, and Vickie
extend best wishes for the holiday season and the New Year ahead !!*



School Bus Maintenance Seminar Evaluation Form Results

*Kildonan East Collegiate, Winnipeg
March 27 & 28, 2007*

This form is designed to assist you in communicating your reactions to Seminar material presented. Please rate your satisfaction with each session on a scale of 1 to 5 ("1" being least satisfied; "5" being very satisfied).

Number of Evaluation Forms Returned: 30

* Number of respondents

** Average satisfaction score (out of possible 5)

Tuesday, March 27th Sessions	Content	Information Retention	Presentation Effectiveness
Ricon Lift (Ricon Corporation)	29* 4.2**	27* 4.2**	27* 4.2**
Mercedes Engine (Detroit Diesel Engines)	29 3.7	26 3.7	27 3.6
SIS/2007 Caterpillar Engines (Toromont Cat)	29 3.3	25 3.6	26 3.5
ULSD CJ-4 Oils (Shell Canada)	28 3.5	25 3.6	26 3.6
Open Forums	13 3.8	13 3.9	13 3.9

Wednesday, March 28th Sessions	Content	Information Retention	Presentation Effectiveness
Vision School Bus (Fairway Bus Sales)	30 3.8	27 3.8	27 4.0
Freightliner Chassis/Thomas Body (C2) (Thomas Bus Manitoba)	29 3.4	26 3.4	26 3.6
Allison Transmissions (Waterous Power Systems)	24 3.7	22 3.7	23 3.8
Information Session (Pupil Transportation Unit)	28 4.0	26 4.0	26 4.2
Open Forums	5 4.2	5 4.2	5 4.2

Comments on following page . . .

Ricon Lift

- Needed more time to cover topic (6)
- Needed a lift-equipped vehicle on site (3)
- Useful information presented (2)
- Generally positive of session (2)

Mercedes Engine

- Generally positive of session (2)
- Good information on EGR's (1)
- Too much information on EGR's (1)
- Too sales-oriented (1)

SIS/2007 Caterpillar Engines

- Too sales-oriented (5)
- Generally positive of session (3)
- Good intro to CAT SIS (1)
- Too much information on EGR's (1)

ULSD CJ-4 Oils

- Generally positive of session (4)
- Good intro to bio-fuels (1)
- Not enough relevance (1)

Vision School Bus

- Generally positive of session (5)
- Good effort by presenter to answer questions/address problems (3)
- Useful information presented (2)
- Too sales-oriented (1)
- Needed a school bus on site (1)

Freightliner Chassis/Thomas Body (C2)

- Generally positive of session (2)
- Too much computer theory (1)
- Good intro to website (1)

Allison Transmissions

- Generally positive of session (1)
- Not enough trouble-shooting information (1)

Information Session - Pupil Transportation Unit

- Generally positive of session (3)

General Comments

- Sessions too sales-oriented (2)
- Presenters should send mechanics, not "salesmen and executives" (2)
- Dealer sessions only helpful if division has those particular models in their fleets (1)
- Sessions other than dealer sessions "a waste of time" (1)
- Ricon should hold an all-day seminar (1)

School Bus Maintenance Seminar Evaluation Form Results

*Crocus Plains Regional Secondary School, Brandon
March 29 & 30, 2007*

This form is designed to assist you in communicating your reactions to Seminar material presented. Please rate your satisfaction with each session on a scale of 1 to 5 ("1" being least satisfied; "5" being very satisfied).

Number of Evaluation Forms Returned: 29

* Number of respondents

** Average satisfaction score (out of possible 5)

Thursday, March 29th Sessions	Content	Information Retention	Presentation Effectiveness
Freightliner Chassis/Thomas Body (C2) (Thomas Bus Manitoba)	29* 3.7**	29* 3.6**	29* 3.7**
Vision School Bus (Fairway Bus Sales)	29 4.0	29 3.9	29 3.9
ULSD CJ-4 Oils (Shell Canada)	28 3.8	28 3.6	28 3.7
Allison Transmissions (Waterous Power Systems)	29 3.8	29 3.8	29 3.8
Open Forums	25 3.8	25 3.8	25 3.7

Friday, March 30th Sessions	Content	Information Retention	Presentation Effectiveness
Mercedes Engine (Detroit Diesel Engines)	28 3.9	28 3.7	28 3.9
Ricon Lift (Ricon Corporation)	28 3.5	28 3.3	28 3.2
Information Session (Pupil Transportation Unit)	28 4.0	28 3.9	28 4.0
SIS/2007 Caterpillar Engines (Toromont Cat)	27 3.9	27 3.9	27 3.8
Open Forums	18 4.2	18 4.2	18 4.1

Comments on following page . . .

Freightliner Chassis/Thomas Body (C2)

- Useful information presented (1)
- Honest about problems with product (1)

Vision School Bus

- Useful information presented (1)

ULSD CJ-4 Oils

- Generally positive of session (2)
- Concerns were addressed (1)

Allison Transmissions

- Content of presentation relevant (2)

Mercedes Engine

- Useful information presented (3)

Ricon Lift

- Useful information presented (3)
- Should offer this session every year at seminar (1)
- “Presenter a little unsure as to hands-on issues” (1)

Information Session – Pupil Transportation Unit

- “Great addition to seminar” (1)
- Useful information presented (1)

SIS/2007 Caterpillar Engines

- Generally positive of session (1)

Open Forums

- “Great info session” (1)

General Comments

- “Best seminar yet”/“getting better every year” (2)
- Sessions very “tech oriented” with minimal sales pitches (1)
- “Lots of need to know info” (1)
- Suggestion for next year: “Have a session of problem identification and actual field fixes by mechanics. There is a lot of expertise that is not getting accessed to its capacity.” (1)
- Good location/timing (1)
- Need session mediators to direct discussions (1)

School Bus Driver Instructor's Seminar Phase III Evaluation Form

**The Viking Inn, Gimli
June 5 – 7, 2007**

This form is designed to assist you in communicating your reactions to material presented at this Seminar. Please rate your satisfaction with each of the sessions on a scale of 1 to 5 ("1" being least satisfied; "5" being very satisfied).

**Number of Respondents: 17 except
where indicated otherwise**

Tuesday, June 5th	Content	Information Retention	Presentation Effectiveness	Usefulness to you as an Instructor	Additional Comments
Roadeo – Information Session	4.8	4.9	4.8	4.9	
Roadeo – Pre-Trip Inspection	5.0	4.9	4.8	4.9	
Roadeo – Off-Road Driving Course	5.0	4.9	4.8	4.9	
Driving Course – Roadeo Tabulation; Group Discussion	4.9	4.8	4.8	4.9	

Wednesday, June 6th

Multiple Choice Written Exam	4.9	4.8	4.8	4.9	
In-Vehicle Instruction	4.9	4.9	4.9	4.8	Based on 16 respondents
DDVL Driver Examiner – Q & A	4.8	4.7	4.8	4.8	

Thursday, June 7th

Observing Motor Skills Development	4.8	4.7	4.8	4.8	Based on 16 respondents
Evaluating Driver Performance on the Road	4.9	4.9	4.9	4.9	
Driver Performance Evaluation – Team Response	5.0	4.9	4.9	4.9	
School Bus Driver Training Program	5.0	5.0	4.9	4.9	
OVERALL PROGRAM	5.0	4.9	5.0	5.0	Based on 15 respondents

Seminar Location: (16) Good (1) Fair (0) Poor

Seminar Timing: (15) Good (1) Fair (1) Poor

Comments:

Rodeo – Off-Road Driving Course

- “Awesome”
- Very informative/helpful in future

Multiple Choice Written Exam

- “Exam included a lot of professional driver content. Expected more school bus driver content.”
- “Easier for myself to be read to so I can visualize than read myself.”

In-Vehicle Instruction

- Need better map/instructions

General Comments

- Generally positive comments/thanks/appreciative (9)
- Interesting/informative course (7)
- Excellent instructors (2)
- Should be longer – a lot to cover (1)
- June is a poor time to run seminar (1)
- Hotel room unacceptable; meeting room; hotel staff were good (1)

TELL US WHAT YOU THINK!!

You have just participated in the first School Bus Driver's Handbook "revision by committee". The Pupil Transportation Unit would like your feedback on how this process has worked. Please consider the following factors and rate them accordingly.

"5" represents "Very Effective"; "1" represents "Very Ineffective".

40 PARTICIPANTS RESPONDED

	Average Effectiveness
Factor	
Reviewing the Handbook in a group format	4.5
Make-up of your working group	4.5
Reviewing the Handbook one section at a time	4.4
Amount of time allotted to review each section	4.3
Process of group reporting after each section	4.4
Having the review as a two-day process	4.4
Inclusion of school division personnel and school bus driver instructors to participate in the review	4.7
Meeting facilities/layout	4.6

Comments:

- Appreciative of opportunity to participate. (9)
- Generally positive of session/process. (8)
- Valuable to share ideas with others. (5)
- Review of handbook overdue. (2)
- Draft presented "very mixed up"/some repetition. (2)
- Sending draft ahead of time for review would have been beneficial. (2)
- Must be opportunity to review the redraft. (2)
- Important that divisions "do basic procedures the same way". (1)
- Would have preferred to produce new handbook by review/editing of the current edition. (1)
- More time required to review properly. (Possibly do in two separate sessions). (1)
- Need final product to be "professional and succinct". (1)
- Handbook should mirror the Professional Driver's Manual. (1)
- Allow more time to review larger sections. (1)
- The new content has answered many questions, is relevant, and decreases inconsistencies. (1)

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
1 Type of Accident			
	Fixed object	12	10%
	Other collision	19	15%
	Pedestrian	1	1%
	Between motor vehicles	91	74%
	Total	123	
2 Fixed Object Accident			
	Bridge rail	1	1%
	Curb or Wall	1	1%
	Fence	2	2%
	No response	110	89%
	Other fixed object	4	3%
	Sign	2	2%
	Tree	3	2%
	Total	123	
3 Accident Result			
	Moderate Injury	1	1%
	Serious Injury	1	1%
	More than \$1,000 damage	33	26%
	Minor Injury	4	3%
	Less than \$1,000 damage	67	52%
	No response	23	18%
	Total	129	

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
5	Manner of Collision Between Vehicles or Object		
	Angle	54	44%
	Head-on	6	5%
	Other collision	42	34%
	Rear-end	21	17%
	Total	123	
6	Bus Directional Analysis		
	Hit vehicle at inter - opp way, both moving	1	1%
	Hit vehicle non-inter - other action	4	3%
	Other collision - non-inter- animal	10	8%
	Other collision - non-inter - fixed object	13	11%
	Non-collision non-inter - overturn	1	1%
	Non-collision non-inter - other noncollision	6	5%
	Non-collision inter - other noncollision	1	1%
	Hit vehicle non-inter - one vehicle stopped	61	50%
	Hit vehicle at inter - same way, both moving	2	2%
	Hit vehicle at inter - angle, both moving	9	7%
	Hit pedstrn at non-inter - straight	1	1%
	Hit vehicle non-inter - opp way, both moving	7	6%
	Hit vehicle non-inter - both moving	7	6%
	Total	123	

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
7 First Point of Impact			
	Front right corner	11	9%
	Top of bus	1	1%
	Right side centre	12	10%
	Right side by entrance door	4	3%
	Right rear corner	20	16%
	Rear centre	18	15%
	Other	5	4%
	Left side centre	7	6%
	Left rear corner	12	10%
	Front left corner	11	9%
	Front centre	7	6%
	Crossing arm	1	1%
	Left side by driver	14	11%
	Total	123	
8 Contributing Circumstances			
	Failed to yield	1	1%
	Backing bus	16	13%
	Followed too closely	1	1%
	Improper overtaking	1	1%
	Made improper turn	7	6%
	No response	69	54%
	Other circumstance	8	6%
	Slippery	22	17%
	Steering	1	1%
	Defective surface	1	1%
	Total	127	

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
13 Years of Experience Driving School Bus			
	2 - 5 years	16	13%
	Over 10 years	67	54%
	5 - 10 years	16	13%
	1 year or less	7	6%
	1 - 2 years	9	7%
	Less than 6 months	8	7%
	Total	123	
18 Type of School Bus			
	Type A - Van	1	1%
	Type C - Conventional	122	99%
	Total	123	
21 School Bus Use at Time of Accident			
	Field/activity trip	14	11%
	Other use	8	7%
	Regular Route	100	81%
	Special education bus	1	1%
	Total	123	
22 Road Condition			
	Icy	26	21%
	Snow packed	28	23%
	Under repair	1	1%
	Holes/ruts	2	2%
	Dry	61	50%
	Other road condition	4	3%
	Muddy	1	1%
	Total	123	

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
23 Light Condition			
	Dark, artificially illuminated	2	2%
	Dark, not artificially illuminated	2	2%
	Dawn	10	8%
	Daylight	106	86%
	Dusk	3	2%
	Total	123	
24 Weather Condition			
	Other weather condition	10	8%
	Rain	1	1%
	Fog	1	1%
	Clear	104	85%
	Snow	7	6%
	Total	123	
25 Road Surface			
	Ashphalt	70	57%
	Concrete	28	23%
	Dirt	1	1%
	Gravel	23	19%
	No response	1	1%
	Total	123	
26 At Time of Accident, Bus was:			
	Approaching the zone	4	3%
	Leaving the zone	2	2%
	No response	107	87%
	Stopped in the zone	10	8%
	Total	123	

School Bus Accident Reports - 2006 Summary

Question	Response	Count of Response	% of Incidence
27 Pupil Hit By Bus or Other Vehicle	No response	123	100%
	Total	123	
28 Location of Injured Pupil(s)	No response	123	100%
	Total	123	

SCHOOL BUS ACCIDENTS BY MONTH –
COMPARISON OF 2006 AND 2005

Month	2006	2005
January	15	26
February	15	17
March	12	13
April	6	5
May	6	8
June	16	10
July	0	1
August	1	1
September	6	6
October	18	11
November	15	19
December	13	19
Total Accidents	123	136

SCHOOL BUS ACCIDENTS BY CAUSE/TYPE
COMPARISON OF 2006 AND 2005

Cause/Type of Accident	2006	2005
Driver error (various scenarios)	38	47
Bus mirror contact	10	13
Bus rear-ended	16	20
Struck stationary vehicle/object while turning	7	7
Bus backing	14	15
Manoeuvring in restricted space	6	5
Struck animal	10	4
Road conditions	10	11
Questionable circumstances/fault	4	2
Delinquency/vandalism	3	2
Weather conditions	1	2
Mechanical failure	1	0
Bus driver health failure	1	0
Struck pedestrian	1	0
Bus sudden stop – non-collision; passengers injured	1	0
Towing incident	0	2
“Off duty” damage to bus	0	4
Crossing arm incident	0	2
Total Accidents	123	136

SCHOOL BUS ACCIDENTS BY DAY OF WEEK AND TIME OF DAY –
COMPARISON OF 2006 AND 2005

Day of Week	Time of Day	2006	2005
Monday	AM	17	7
	PM	12	13
Tuesday	AM	10	19
	PM	12	11
Wednesday	AM	12	17
	PM	9	15
Thursday	AM	15	13
	PM	13	19
Friday	AM	11	7
	PM	11	12
Saturday	AM	0	0
	PM	1	0
Sunday	AM	0	2
	PM	0	1
Total Accidents		123	136

**INJURIES SUSTAINED IN
2006 SCHOOL BUS ACCIDENTS**

Month of Accident	Who Was Injured?	Severity of Injury
February 2006	School bus driver	Minor
June 2006	Passengers; other staff on bus	Minor
October 2006	School bus driver	Minor
November 2006	School bus driver	Minor
November 2006	School bus driver	Moderate

CANADIAN STANDARDS ASSOCIATION
SCHOOL BUS STANDARD D250-07
UPDATES/CHANGES

5.6.3.3 - Exhaust System

Allows exhaust pipe to discharge within 8 inches of the rear bumper. However, it must be directed downward and towards the rear of the bus. This clause was added to accommodate higher exhaust temperatures generated by the diesel particulate filter (DPF) when regenerating.

6.4 – Colour

6.4.3 - a note has been added to clearly indicate body trim items.

6.5.2 – Sides

New clause clarifies installation of retroreflective markings on the sides of the bus body.

6.6.1.2 – Floor Overlay

- (a) A minimum bearing strength of 4.5 MPa (652 psi)
- (b) A minimum R Value of 0.58

6.8.2.2 – Service Door Emergency Release

If the emergency release mechanism is inoperative due to a vandal lock, an ignition interlock is required.

6.9.2.7 – Rear Emergency Door

Rear seat configuration must allow for a 24" x 24" staging area at the rear door.

6.9.3.2 – Roof Hatches

A performance standard has been added to roof hatch requirements.

6.11.1 – Fire Extinguisher Type

Now clearly identified according to industry standards. A minimum rating of 3A:40B:C and complies with CAN/ULC-S504.

6.12.1 – First Aid Kit

Changes are as follows:

- (c) two resuscitation face barriers with one-way valve;
- (d) four pairs of non-latex gloves;
- (e) four emergency blankets;

6.13.1 – Floor Covering

Now must meet current industry standards, minimum coefficient of friction of 0.6 when tested in accordance with ASTM D 2047 or 0.85 when tested in accordance with ASTM D 1894.

6.16.1 – Inside Height

Type A1 buses (small buses) minimum inside height of 65 inches.

6.18.2 – Luggage Racks

Overhead luggage racks are prohibited.

6.19.2.5 – Alternating Flashing Warning Lamps

A master switch for the eight light system is not required if a driver controlled override switch is capable of deactivating the warning light system at any time during its operation.

6.19.2.8 – the black area around the warning lamp has been reduced to accommodate new body styles.

6.19.6 – Strobe Lamp

Standards are provided for buses equipped with strobe lights. A maximum energy level is indicated, and a lighted “on” switch is required.

6.19.7 – Exit Lamp

New buses must be equipped with an exterior lamp mounted directly above the service door.

6.22.2.2 – Inside Rear-View Mirror

Type A1 and A2 buses require a 6” x 16” rear-view mirror.

6.24.2 – Noise Suppression Switch

The manufacturer shall identify the noise suppression switch. The identification shall be provided on or adjacent to the switch.

6.25.1 – Rub Rails

Rub rails are now identified by number – one at shoulder level; two at knee level; three at ankle level; and four at the bottom of the body skirt.

6.26.2 – Seat Belt Cutter

All buses require a seat belt cutter located within the driver’s reach.

6.27.2.2 – Seating – Child Restraint Systems

High back seats are required for child restraint system and maximum seat spacing is required to accommodate car seats on bus seats with anchors.

6.27.3.3 – Driver’s Seat

Installation of the driver’s seat must allow for adjustment of 11 to 15 inches from the rearwardmost point of the steering wheel.

6.28.2 – Steps

Height – the first step at the service door shall be 250 to 350 mm (10-14 inches) from the ground (based on standard chassis specifications).

6.30 – School Bus Stop Arm

On buses over 9.15m (30 feet) in length, a stop arm at the rear of the bus may also be installed.

6.31.3 – Pedestrian-Student Safety Crossing Arm

The crossing arm shall extend at least 1780 mm (70 inches) (measured from the arm assembly pivot point) when in the extended position.

6.32 – Sun Shield

The viewing area shall not be less than 140 x 750 mm (5.5” x 29.5”) and shall be adequately supported to prevent excessive vibration.

6.34.3 – Circulation Fans

If installed, circulation fans that supply air to the windshield(s) may be used in addition to the defroster system specified in clause 6.7. Circulation fans shall not be used in lieu of the defroster system.