



**AUTOMOTIVE RETAILERS ASSOCIATION**  
*Towing & Recovery Division*

## **Automotive Retailer's Association Towing and Recovery Risk Assessment Project**

### **Project Summary and Recommendations**

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## Towing and Recovery Risk Assessment Project Summary and Recommendations

### Introduction

This report is a summary of the Towing and Recovery Risk Assessment Project which was conducted from April through June of 2015 on behalf of the *Automotive Retailers Association*. This report will review the background, purpose, project methodology, findings and recommendations of the project. These findings and recommendations are intended to inform the future development of occupational health and safety program resources for the towing and recovery sector in British Columbia.

### Background

Towing and recovery is a high risk industry sector characterized by a unique combination of workplace hazards. To date, there is no systematic approach to managing these hazards. Recognizing this fact, representatives from the towing and recovery sector have taken the initiative to develop an occupational health and safety development strategy which will speak to the specific hazards of the industry.

The long term outcomes of this strategy will be to establish industry safety standards that will include:

- Standard work practices,
- Specialized skills training,
- Worksite safety management protocols, and
- Risk assessment tools which will guide the use of these standards.

In the short term, and to inform the development of these industry safety standards, an initial risk assessment review of the sector was conducted in April through June of 2015. The review was guided and assisted by the members of the *Towing and Recovery Technical Advisory Committee*. The advisory committee is chaired and supported by the *Automotive Retailers Association*, and is

made up of representatives from the towing and recovery sector. The deliverables of this review included:

1. A general risk assessment of the industry to identify areas of hazard for which safety initiatives will need to be developed,
2. A means of ranking the risks associated with particular types of towing and recovery operations to allow the selection of employers with appropriate skills, knowledge, and equipment, and
3. A draft site risk assessment tool for towing and recovery operations.

The projected scope of this initial review was intended to include the following research tools:

- A statistical analysis of sector trends in injuries, fatalities, and safety citations,
- A literature review to identify developments in other jurisdictions,
- A survey questionnaire to identify perceived areas of concern, and
- Process reviews of towing and recovery operations.

## **Industry Risk Assessment Methodology and Results**

All of the projected research tools were applied to the review. In practice, meta research and the questionnaire proved less effective than field research and group discussion.

### **1. Statistical Review - Injuries**

A summary of claims and claims costs for CU 732006 (Auto Towing) for 2010 through 2014 was provided by WorkSafeBC. Unfortunately, the manner in which WorkSafeBC captures injury claims data means that it can only provide very general information. Nonetheless, the summary does reveal injury rates and costs in the towing and recovery sector that are higher than average. The summary also notes that musculoskeletal injuries (MSIs) are the most common types of injuries. MSIs are a general term for strains, sprains and overuse injuries and can refer to anything from lower back strains to tendinitis. The second most common types of claims are due to traumatic injuries related to slips, trips, falls or mishaps with equipment. Considering the physical demands found in the towing and recovery sector these results are not surprising.

However, what is notable is that these two categories, despite their volume, do not account for the majority of claims costs, which are due to motor vehicle incidents (MVIs). As claims cost is a reliable indicator of severity it can be concluded that the most serious injuries in this sector relate to MVIs and that work around motor vehicles constitutes the most significant risk.

## **2. Statistical Review – Safety Citations**

A summary of regulations cited in WorkSafeBC inspection reports, orders and follow-up orders for CU 732006 (Auto Towing) for 2009 through 2104 was provided by WorkSafeBC. These records only identify those areas of the *Act* or *Regulation* which a Prevention Officer cited while inspecting a towing and recovery operator and do not provide information as to the circumstances under which the regulations were cited. In general the 877 citations included in the summary relate to the general requirements of a basic safety program, such as the requirements for equipment inspections, investigations, orientation, and training. Most of these concerns would be addressed if the ARA's generic small and large employer safety programs were adapted to the towing and recovery sector and implemented in full. A specific area of the regulation which was cited frequently was OHSR 8.24(2) (High visibility apparel). This citation relates to towing and recovery operators not wearing appropriate high visibility apparel when working near vehicle traffic. As noted above this type of work constitutes the most significant risk in this sector. It is also noted that not all of the regulatory citations may have been appropriate for the circumstances and consideration should be given to some process for reviewing inspection reports and orders issued in this CU.

## **3. Literature Review**

A search of occupational health and safety literature did not turn up resources relevant to this project. However, access was provided to the WreckMaster<sup>®</sup> Level 1, 2/3, and 4/5 training DVDs, as well as the WreckMaster<sup>®</sup> *Recovery Handbook*. The WreckMaster<sup>®</sup> material proved to be an excellent technical resource which assisted in the development of the questionnaire and the preparation for the workshop.

## **4. Process Review – Ride Alongs**

Operational ride alongs took place on April 23<sup>rd</sup> 2015 with *Mitchell Towing* and April 24<sup>th</sup> 2015 with *Maple Ridge Towing*. While this was not a comprehensive review of all industry practices it did provide a basic introduction to vehicle recovery, towing, and transportation, and contributed background information towards the development of the questionnaire and to preparation for the workshop.

## **5. Process Review - Survey Questionnaire**

Based upon the literature review and ride alongs a risk assessment survey questionnaire was developed and circulated to the members of the technical advisory committee. A copy of the

questionnaire is attached to this report as *Appendix 1*. Unfortunately, the survey received no responses but was used as the basis for the risk assessment workshop.

## **6. Process Review - Workshop**

A risk assessment workshop was facilitated on May 26<sup>th</sup> 2015 involving members of the technical advisory committee. The workshop identified hazards related to specific tasks, different types of operations, and different on-scene conditions. The relative risks associated with the hazards were ranked and possible control measures identified. The workshop results are detailed in *Appendix 2*.

## **Scene Risk Assessment and Site Safety Plan**

Based upon the results of the risk assessment workshop a site assessment form and site safety plan template was developed. The form was pre-populated with identified high and medium risk hazards and structured to allow for the onsite development of a safety plan. A draft of the form is included in this document as *Appendix 3*.

## **Recommendations for Immediate Development**

To support the use of the *Scene Risk Assessment and Site Safety Plan*, and the occupational health and safety development strategy for standard work practices, specialized skills training, and worksite safety management protocols, the next stage development of the following elements is recommended:

### **1. Traffic Control Plans**

Standardized traffic control plans should be developed for the most common traffic control situations found in towing and recovery operations. These plans should address the high risk factors identified in the risk assessment workshop. At a minimum, these plans should include clear protocols for the following:

- The use of emergency lighting,
- The use of buffer vehicles,
- Layouts for lane closures, and
- The use of traffic control personnel.

## **2. Standard Work Practices**

Based upon the risk assessment workshop, at a minimum, standard work practices should be developed for the following identified high and medium risk activities:

- Assembling dollies (all models)
- Removing drive lines
- Off-road recovery
- On-road recovery
- Ditch recovery
- Rollover recovery
- Securing loads(deck)
- Deck transport
- Tow transport
- Motorcycle transport
- Service calls – tire
- Service calls - fuel
- Service calls - unlock
- Service calls - boost
- Service calls – won't start

If resources are available standard work practices should be developed for all tasks, jobs, and operations identified in the workshop.

## **3. Operational Protocols**

Based upon the risk assessment workshop, at a minimum, operational protocols should be developed for the following:

- Site assessments for damaged hydro utilities,
- Site assessment for debris,
- Sites involving hazardous materials,
- Exposures to biohazards, and
- Communication with dispatch.

### **Recommendations for Further Development**

In addition to these recommended program elements consideration should be given to the following, depending on the availability of resources:

#### **1. Personal Protective Equipment**

As noted above, there is a concern over recovery operators not wearing appropriate high visibility apparel when working near vehicle traffic. A communication and awareness strategy should be considered to encourage the use of high visibility apparel which meets current standards, and especially the use of retroreflective apparel for night work.

## **2. Base Safety Program**

As noted above, the most common safety citation related to this sector relate to the general requirements of a basic safety program, such as equipment inspections, investigations, orientation, and training. To address this matter the ARA's generic small and large employer safety programs should be adapted to the towing and recovery sector, and implemented in full.

## **3. Water Recoveries**

Water recoveries can be unique and complex operations. Under some circumstances work around water can be considered inherently high risk and will require specialized work procedures. Because water recoveries are less frequent these procedures must be given less priority than the procedures identified above. However, should resources become available the development of the following procedures should be given every consideration:

- Water recovery site assessment considerations,
- Protocols for recovery from standing water,
- Protocols for recovery from moving water,
- Protocols for recovery from swift water, and
- Protocols for the recovery of submerged vehicles.

## **4. Steep Slope Recoveries**

Steep slope recoveries are another type of infrequent recovery which have the potential to be inherently high risk. This is especially true when there is a requirement to work at heights of over 3 meters, or on a downhill slope with rollover hazards. Because steep slope recoveries are less frequent they must be given less priority than the procedures identified above. However, should resources become available a risk assessment and needs analysis should be undertaken for steep slope recoveries.

## **5. Engineered Safety Controls**

The standard hierarchy of hazard controls followed in most safety management systems requires that consideration be given to engineered safety controls whenever possible. The scope for engineering controls in this sector is limited but several that may be considered include:

- Right hand drive tow trucks,
- Dolly unloaders, and
- Motorcycle carriers.

## **6. WreckMaster<sup>®</sup> Training and Certification**

WreckMaster<sup>®</sup> is a private for profit organization that provides training, certification, and technical resources to the towing and recovery industry. The quality of the WreckMaster<sup>®</sup> training and resources are excellent, and WreckMaster<sup>®</sup> certification should be considered as the provincial industry standard. However, this must be qualified with the consideration that access to WreckMaster<sup>®</sup> training is both limited and expensive. This will be a significant consideration for smaller operators and those in remote locations.

## **7. Specialized Protocols**

Consideration should be given to the research and development of guidelines and protocols for the following circumstances:

- Multi-agency sites,
- Multi-agency sites managed by emergency services,
- Operations involving the use of contractors, and
- Go/no go situations.

## **Appendix 1 - Towing and Recovery Safety Risk Assessment Survey**

This survey is intended to identify and rank the hazards and risks associated with the towing and recovery industry. The information gathered in this survey will be used to develop a risk assessment protocol for towing and recovery operations and to develop safe work practices for high risk operations.

You are asked to consider the hazards and risks of an operation on three levels:

1. **The scene.** This refers to the on-scene conditions related to the operation and includes all of the factors present which might create a hazard. These factors might include inherent conditions such as weather, time of day, and traffic. It also includes the physical layout, including such factors as slopes, water, and lines of site for traffic. Finally, it includes operational considerations such as the presence of emergency services, other agencies, contractors, hazardous materials, or other hazardous conditions (i.e. downed power lines).
2. **The job.** This refers to the type of operation and includes all aspects of carrying it out. Operations might include a basic tow, recovery from a ditch, a rollover, changing a tire, or carrier transport.
3. **Specific tasks.** This refers to specific tasks which might be a part of one or more types of operations. Tasks might include driving, operating a winch, using a dolly, or handling air tools.

For each of these three levels identify the ten scene conditions, jobs, and tasks which you believe are the most hazardous to the operator. If possible rank the hazards from 1 to 10, with 1 being the most hazardous and 10 the least hazardous. For each hazard identified rank the likelihood that the hazard will cause an accident or injury, and the likely consequences of the accident or injury. Finally, for each hazard identified suggest the most practical method of hazard control.

## On-Scene Hazards

## **Job or Operational Hazards**

## Task Related Hazards

## **Appendix 2 - Risk Assessment Workshop Outcomes**

### **Workshop Methodology**

The process review workshop was based upon the same methodology as the risk assessment survey but relied on question and answer, facilitated discussion, and whiteboard work. The discussion order was conducted in the reverse order from the questionnaire:

1. Task related hazards
2. Job or operational hazards
3. On-scene hazards

Factors and recommended controls were volunteered by the participants although likely topics had been identified prior to the workshop. The *Likelihood*, *Consequences* and risk *Rank* values were based upon the standard two axis risk matrix illustrated below:

**Risk Matrix**

		Consequences	Low Impact	Serious	Catastrophic
Probability	Ranking	1	2	3	
	Remote	1	1	2	3
Possible	2	2	4	6	
Probable	3	3	6	9	

### **Risk Ranking Based on Score**

- **1 - 3 = Low Risk**
- **4 = Moderate Risk**
- **5 – 9 = High Risk**

### On-Scene Hazards

Rank	Factor	Likelihood	Consequences	Recommended Control
9	Traffic	3	3	XXX
3	Weather - visibility	1	3	Traffic plan
3	Weather – road conditions	1	3	Traffic plan
2	Temperature - hot	1	2	Environmental awareness – exposure plan
1	Temperature - cold	1	1	Environmental awareness – exposure plan
9	Time of day –day (sun restricted visibility)	3	3	Awareness – traffic plan
6	Time of day - night	2	3	Lighting Delay until daylight
9	Time of day – rush hour	3	3	Traffic control plan
-	Time of day – drunk hour	-	-	
9	Hazmat - chemical	3	3	Emergency services
9	Hazmat - biohazard	3	3	Exposure plan
9	Utilities - hydro	3	3	Site assessment – go/no go
9	Debris (mess)	3	3	Site assessment
*	Slope or embankment	-	-	Assess for fall risk –fall protection plan
9	Line of site	3	3	Traffic plan
3	Bystanders	1	3	Take charge

### Job or Operational Hazards

Rank	Job or Operation	Likelihood	Consequences	Recommended Control
9	Recovery – off road	3	3	Training Certification SOP
4	Recovery – on road	2	2	Training Certification SOP
9	Recovery - water	3	3	Training Certification SOP
9	Recovery - ditch	3	3	Training Certification SOP
6	Recovery - rollover	2	3	Equipment Training Certification Scene assessment
6	Deck transport	2	3	Training Certification SOP
6	Tow transport	2	3	Training Certification SOP
9	Motorcycle transport	3	3	Equipment Training SOP

6	Service call Tire Fuel Unlock Boost Won't start	2	3	Equipment Training
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### Task Related Hazards

Rank	Task	Likelihood	Consequences	Recommended Control
6	Assembling dollies	2	3	Training Use an unloader SOP
3	Driving	1	3	Abstraction Driver Assessments Driver Standards
1	Fueling	1	1	Training Proper Container
1	Hook – up Sling Wheel lift Underlift	1	1	Training SOP Pre-trip
6	Deck transport	2	3	Training SOP Pre-trip Rules
6	Tire change	2	3	Training Equipment Chocks
6	Jump start	2	3	Jumper pack PPE Proper use of cables (SOP)
9	Removing drive line	3	3	Training Securing Blocking

1	Unlock	1	1	PPE SOP
2	Securing load (wrecker)	1	2	Training SOP
4	Securing load (deck)	2	2	Training SOP
1	Securing steering	1	1	Training SOP
1	Tow lights	1	1	Training SOP



## Appendix 3 - Towing & Recovery Scene Risk Assessment and Site Safety Plan

Date:	Time:
Location:	
Company:	
Assessment/Plan Developed by:	Signature:
<b>Risk Factors and Control Measures</b>	
<b>Traffic Risk Factors</b>	
<input type="checkbox"/> Speed <input type="checkbox"/> Traffic Volume <input type="checkbox"/> Line of Sight <input type="checkbox"/> Road Conditions <input type="checkbox"/> Number of Lanes <input type="checkbox"/> Shoulder <input type="checkbox"/> Other	
<b>Traffic Control Plan</b>	
1.	
2.	
3.	
4.	
5.	
<i>Note on Site Diagram</i>	
<b>Site Risk Factors</b>	
<input type="checkbox"/> Accident Scene <input type="checkbox"/> Weather <input type="checkbox"/> Night Work <input type="checkbox"/> Hazmat <input type="checkbox"/> Power lines <input type="checkbox"/> Multiple Employer Worksite <input type="checkbox"/> Other	
<b>Risk Control Measures</b>	
1.	
2.	
3.	
4.	
5.	
6.	
<i>Note on Site Diagram</i>	
<b>Operational Risk Factors</b>	
<input type="checkbox"/> Water Recovery <input type="checkbox"/> Steep Slope Recovery <input type="checkbox"/> Off Road Recovery <input type="checkbox"/> Ditch Recovery <input type="checkbox"/> Complex Recovery (NOS) <input type="checkbox"/> Motorcycle Transport <input type="checkbox"/> Service Call <input type="checkbox"/> Other	
<b>Operating Procedures</b>	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
<i>Note on Site Diagram</i>	

**PPE & Specialized Equipment**

**Site Diagram**

**Additional Notes:**