

**Effective and Efficient End-of-life-Vehicle Environmental Management in
Ontario**

Introduction:

End of life vehicle (ELV) processing represents one of the largest recycling sectors in Ontario with approximately five hundred and fifty thousand vehicles recycled each year.¹ High recycling rates for ELVs, estimated to be around 94 %, are driven by their scrap metal value².

While this unregulated sector is generating recycling rates that are better than many waste diversion programs, ELV management remains a patchwork quilt of highly varied and variable environmental practices.

While a notable number of vehicle recyclers operate to high environmental standards with attendant high rates of reuse, recycling and minimal environmental discharges, the majority operate to no standard at all.

Auto “wrecker” fires and discharges of substances of concern such as ozone depleting substances, heavy metals (mercury), waste oils, and fuels continue as vehicles are shredded or crushed whole with little or no “pre-processing” or “de-pollution” (also called “decommissioning”) to prevent such occurrences and impacts on the environment.

In the past five years, the Automotive Recyclers of Canada (ARC) regional affiliate– Ontario Automotive Recyclers Association’s (OARA) has been at the forefront of promoting the need for a uniform national environmental standard for any business engaged in the reuse or recycling of ELVs.

As part of its efforts ARC developed the National Code of Practice for Automotive Recyclers Participating in the National Vehicle Scrappage Program (i.e. “Retire Your Ride”) on behalf of Environment Canada.

In Ontario, OARA membership requires compliance with this National Code which establishes environmental standards for operating sites and requires proper removal of waste oils and other substances of concern when an ELV is processed by a recycler.

While there has been significant progress with regard to identifying and developing an environmental protocol for ELV management in Ontario, the National Code remains a voluntary standard – a full two thirds of approximately

¹ According to Statistics Canada, new motor vehicle sales in Ontario averaged just under 590,000 units annually between 2006 and 2010. While the OARA is not aware of any data on the exact number of vehicles coming off the road in Ontario each year, a number of studies estimate recycling rates to be around 94% in North America jurisdictions which equates to approximately 555,000 vehicles in Ontario each year.

² A number of studies on vehicle recycling in North America estimate the current recycling rate to be around 94 % see “Gate-to-Gate Life Cycle Inventory Assessment of North American End-of-Life Vehicle Management Processes”, a Dissertation by Susan S. Sawyer Beaulieu, University of Windsor, 2009, page 7. The scrap metal value of a typical ELV ranges between \$250 and \$300.

555,000 cars per year are processed with little or no systematic de-commissioning before undergoing bulk metal recycling.³

Without participation and commitment by all ELV processors, a long-term voluntary approach is not sustainable from either an environmental or human health perspective. It is also inconsistent with the concept of growing a “green economy”: the idea that reasoned environmental standards for the management of end-of-life materials induce efficiency and encourage innovation and investment in the processing sectors that manage those materials.

Accordingly, OARA proposes: the introduction of an ELV environmental management regulatory requirement in Ontario and the establishment of an Ontario Vehicle Recycling oversight body to administer a licensing regime and monitor those businesses involved in vehicle recycling. The oversight body would issue annual reports on the outcome of vehicle recycling activities in the province.

The Ontario Vehicle Recycling oversight body would operate under the authority of a provincial statute or regulations and administer rules for vehicle recycling (established under those regulations) to ensure that all end-of-life vehicles in Ontario are processed to a common ELV environmental management standard.

OARA proposes that the oversight body be established as a not-for-profit corporation funded by licensing fees payable by businesses involved in recycling end-of-life vehicles (ELVs). It would be governed by an independent board with accountability and reporting requirements.

Under this proposal, vehicles would not be designated as a material under the current or any future *Waste Diversion Act*, rather vehicle recycling would be regulated under an independent legislative regulatory regime. In OARA's view, this approach builds on the existing market-based ELV recycling economy and represents the most efficient and effective way to deliver on the broad objectives identified in the government's *From Waste to Worth* paper.

The outlined approach or concept for an effective and efficient end-of-life vehicle environmental management presented in the Paper can be applied across the county and will result in overall environmental improvements for the sector as well as economic efficiencies.

³ The OARA estimates that its members account for approximately one third of the end of life vehicles recycled in Ontario each year.

Vehicle Recycling in Ontario Today

As discussed earlier, it is estimated that approximately five hundred and fifty thousand vehicles in Ontario are retired from the road annually. They are managed by an ELV processing industry that can be considered to be essentially unregulated. The few regulatory requirements that do exist are without effective oversight and are largely unenforced.

The ELV processing sector is driven by market dynamics. The metal value of vehicle hulks, and the value of parts from ELVs, ensures that a high percentage of vehicles, estimated at over 94%, are currently collected for recycling.⁴ Of this it is estimated that approximately 83% of a typical ELV by weight will be reused or recycled when it is properly dismantled.

The majority of a vehicle by weight is metal (74% to 77%) (88-91% ferrous, 9-12% non-ferrous)⁵ and these metals are recycled at extremely high rates. ELVs also contain substances and materials such as fuels, oils, antifreeze, lead and other heavy metals (mercury), and refrigerants which are of concern if not properly processed. Surveys indicate that the average end-of-life vehicle contains approximately 40 litres of fluids. .

While a high percentage of vehicles are currently recycled, there is no comprehensive oversight and monitoring system in place to ensure they are processed in a manner that ensures the appropriate removal and treatment of substances of concern. As a result, many ELVs are not necessarily properly treated for removal of the substances of concern during the recycling process.

Recycling is conducted by a variety of different businesses – dismantlers, shredders, crushers and steel and other metal manufacturers. The Ontario Automotive Recyclers Association (OARA) represents 130 dismantlers out of an estimated 500+ businesses involved in ELV processing in Ontario

OARA members dismantle end-of-life vehicles to recover parts for resale and reuse. They dismantle and de-commission ELVs prior to further processing which may include crushing or compaction of the remaining vehicle before it is subsequently shredded. Parts which have value are removed, stored (generally catalogued in electronic databases) and sold for reuse or remanufacturing. Fluids (e.g. gasoline, antifreeze, lubricants) are removed and either reused or sold or transferred to authorized hazardous waste processors (e.g. used engine oil). OARA members also remove tires, batteries, mercury switches and refrigerants which are recycled or processed in accordance with provincial requirements.

⁴ “Gate-to-Gate Life Cycle Inventory Assessment of North American End-of-Life Vehicle Management Processes”, a Dissertation by Susan S. Sawyer Beaulieu, University of Windsor, 2009, page 7.

⁵ Ibid, page 6.

As noted earlier, OARA members are subject to the National Code of Practice for Automotive Recyclers developed by Environment Canada in partnership with ARC and provincial automotive recycling associations including OARA. Participation in Canada's Retire Your Ride program required adherence to this Code.

All OARA members participate in the National Mercury Switch Recovery program or *Switch Out*. In fact the voluntary removal of mercury switches in Ontario was started by an OARA member. While OARA members operate in accordance with a voluntary environmental standard and programs like Retire Your Ride (RYR) also required decommissioning in accordance with a standard, the majority of auto recyclers processing the majority of ELVs in Ontario do not operate in accordance with a comprehensive or rigorous environmental standard or oversight.

The hulks of ELVs which are de-commissioned and dismantled are subsequently forwarded to a metal crusher or shredder. Many, but not all, vehicles hulks are crushed prior to shredding. Most vehicle hulks are shredded prior to the metal component being utilized in remanufacturing steel or other metals. When processing vehicle hulks shredders typically produce various metals for remanufacturing and shredder residue or fluff, often referred to as automotive shredder residue (ASR). ASR is composed of the co-mingled components of an ELV and typically is a combination of shredded glass, foam and various plastics. At the shredding and crushing stage, ELVs may be co-mingled with other scrap metal sources such as appliances.

While there are a variety of businesses involved in dismantling and crushing vehicles there are relatively few shredding facilities in operation in Ontario. OARA is aware of 7 vehicle shredding facilities in Ontario.

Given that the province does not regulate vehicle recyclers or metal recyclers and that there is also no formalized process for terminating vehicle identification numbers (VINs), there are no reliable statistics regarding the number of vehicles that are recycled in Ontario each year. As noted earlier, OARA estimates that approximately 555,000 vehicles come off the road in Ontario each year.

In OARA's view, the majority of ELVs recycled in Ontario, approximately 370,000, may be processed without proper removal of fluids or other materials of concern such as lead, mercury and ozone depleting substances.

ONTARIO ELV FLOW CHART

94% of ELVs Recycled or Approximately 550,000 Annually

Approx. 185,000 ELVs

Approx. 370,000 ELVs

DISMANTLING (OARA)

- Vehicles properly decommissioned
- parts resold or rebuilt
- tires, batteries removed
- 130 members audited against standards

OTHER PROCESSORS

- range of practices
- limited participation in voluntary programs
- majority follow no standards or regulatory oversight

Substances of Concern

Substances of Concern

- ODS removed by trained technicians
- oils & fluids, batteries removed, manifested and processed
- mercury switches removed
- no contamination of ASR and metal feedstock

- ODS released to atmosphere
- mercury, oils, battery fluids contaminate ASR, metal feedstock, operating sites and environment

CRUSHING

- for transportation of vehicle hulks

SHREDDING

- separation of metal and non-metal components
- ferrous metals separated by magnetic processes
- non-ferrous metal subject to further processing
- automotive shredder residue (ASR) sent to landfill for use as day cover

Scrap metals utilized in remanufacturing

83% of ELV by weight recycled

ASR sent to landfill for use as day cover

17% of ELV by weight

Current Regulatory Requirements

Vehicle dismantlers and other automotive recyclers such as crushers and shredders are subject to some but not all Ontario *Environmental Protection Act* (Ontario EPA) provisions. Under the Ontario EPA most businesses involved in storing and recycling ELVs would be classified as derelict vehicle sites. These sites are exempt from Part V of the Ontario EPA and Regulation 347 which both deal with waste management activities. The derelict vehicle exemption means that dismantlers are not obligated to operate under an EPA Certificate of Approval as waste disposal facilities.

Other sections of the Ontario EPA do apply to vehicle dismantlers and other automotive recyclers. These include Part II: establishing general prohibitions on the release of contaminants into the environment; Part VI: regarding handling of ozone depleting substances; and Part X: regarding reporting and cleanup requirements related to spills.

Some federal statutes also apply to vehicle recycling operations. Any vehicle dismantler operating on federal lands is subject to federal requirements rather than the Ontario EPA. Federal law also regulates the transportation of hazardous substances on federal highways and between provinces regardless of source of operation. Some provincial requirements also link to federal guidelines such as container guidelines regarding refrigerant storage.

Under the Ontario EPA, materials such as waste oil, batteries and antifreeze require a manifest and they must be forwarded to authorized processors or handlers. Refrigerants must be removed by trained technicians and stored in accordance with Ontario ozone depleting substances regulations. In general, however, many Ontario EPA requirements that apply to vehicle recycling are not necessarily rigorously enforced throughout the sector.

Problems with an Unregulated Automotive Recycling Market

While provincial and federal statutes apply to many ELV materials and theoretically prevent the release of potential contaminants into the environment, there are no specific regulations in Ontario that explicitly require end-of-life vehicles to be treated or processed in a specified manner.

This lack of clear regulation of ELVs has resulted in industry practices which vary widely. While many vehicle dismantlers process ELVs and their components in a manner consistent with the National Code of Practice, Ontario EPA and federal requirements, other businesses process vehicles for the scrap metal value with little or no treatment from an environmental perspective. In other words, some aspects of ELV handling are not regulated at all and where regulations do exist, enforcement is lacking.

This suggests that the majority of ELVs in Ontario are processed for scrap metal value only with no evidence or information that substances of concern (such as fuels, lead, mercury, oils, ozone depleting substances and other fluids) are recovered and managed. The fate of these substances is not known but it is likely that many are released into the environment negatively affecting operating sites and landfill materials. Lack of decommissioning also increases airborne pollution as ozone depleting substances are released into the atmosphere, emissions from scrapyards are more toxic and contaminants associated with vehicle hulk metal processing are increased.

The release of 15 million litres of substances of concern in a single incident would likely generate headlines across the province.⁶ However, many small, daily releases of substances of concern are happening across Ontario and this can be just as damaging to the environment.

When vehicles are not properly de-commissioned the incidence of scrap yard fires, like the May 2010 fire in Ottawa⁷, are more likely as scrap metal is contaminated with flammable materials. Moreover, the pollution associated with such fires is far more harmful because the materials that are burning may contain substances of concern such as lead, mercury, glycols and oil byproducts.

Without proper ELV de-commissioning, both scrap metal and shredder residue can also have higher levels of contaminants. Fluids and other substances can be absorbed into automotive shredder residue (ASR). The contaminated ASR which ends up in landfill poses a greater risk to ground water contamination than ASR generated from vehicles that have been properly de-commissioned. Metals forwarded from shredders, a source for metal production, can be contaminated with substances of concern so the subsequent emissions from metal manufacturing have higher levels of these materials.⁸

If ozone depleting substances and other refrigerants which also have a high global warming potential, are not properly removed and captured prior to vehicle crushing or shredding, they may simply be released into the atmosphere with associated adverse environmental impacts.

⁶ If it is assumed that 370,000 vehicles are recycled in Ontario annually with no de-pollution and that the average ELV generates 40 litres of fluids (see RetireYourRide website), then the resulting fluid pollution associated with improper recycling practices and ELVs is 14.8 million litres annually. This estimate does not include ozone depleting substances, mercury or lead.

⁷ "Fire Raises Toxic Concerns: Province asked to look into scrap yard rules", Ottawa Sun, May 3, 2010. Article regarding reaction to a scrap yard fire at Barkermet in Ottawa. Local Councilor, Diane Deans wrote to the then Minister of the Environment, the Honourable John Gerretsen, requesting a meeting to discuss provincial regulations governing scrap metal yards and recycling facilities. According to the press the Barkermet fire was the fourth fire at a scrap metal facility in Ottawa in the last 2 years.

⁸ For example, the Canadian Steel Producers Association has adopted a "Zero Mercury" Scrap Purchasing Policy in an effort to improve environmental performance related to mercury emissions and steel production. See CSPA 2010 Environmental Performance Report, page 11.

Sites where vehicles are crushed and shredded without proper de-commissioning may become contaminated over time and the likelihood of off-site environmental impacts will increase as the crushing and shredding operations continue to cause materials to leak into the soil.

Businesses that process vehicles with minimal de-commissioning are avoiding costs and generating higher profits through negatively damaging the environment.

Operations that are properly removing substances of concern find it harder to compete for ELVs with businesses that undertake little or no processing. Metal recyclers and steel manufacturers may prefer to receive vehicles that have been properly de-commissioned, but the economics of the industry make it difficult for those businesses to refuse shipments from sources that may not be operating to high environmental standards.

In short, the principle problem with ELV recycling in Ontario today is not that vehicles are not being recycled, but that a significant number of ELVs are not processed properly before they are recycled. This creates an uneven playing field for businesses in the sector and means that the unprocessed byproducts of ELV recycling may be damaging to the environment.

Waste Diversion Act and Automotive Recycling

OARA has participated in the Ontario Government's review of the *Waste Diversion Act* (WDA). While the Ontario Ministry of Environment's discussion paper – From Waste to Worth - describes proposed changes to the WDA that include having the Government of Ontario, rather than industry, set environmental standards for end-of-life (EOL) product and material processors, OARA still believes that even a reformed WDA is an inappropriate regulatory approach to improving ELV management in Ontario.

Specifically, the fundamental WDA approach of assigning EOL responsibility for vehicles to vehicle original equipment manufacturers and first importers will undoubtedly result in significant economic dislocations in the ELV processing sector, without improving overall environmental performance.

OARA believes that an alternate approach that recognizes the unique characteristics and challenges associated with ELV recycling (i.e. a pre-existing market-based system that is already capturing a high percentage of ELVs) is warranted. In other words, there is a better, less disruptive and lower risk approach.

To fully understand why the WDA is an inappropriate mechanism to enhance ELV recycling it is instructive to briefly review how the WDA operates.

The principle objective of the WDA is to divert materials from landfill. The WDA attempts to fulfill the objective by establishing Industry Funding Organizations (IFOs) comprised of the brand-owners and first importers of the product regulated under the WDA. Once established, these IFOs develop recycling programs for the regulated products under oversight of Waste Diversion Ontario and then pay for the implementation and operation of the program.

These IFO operated WDA diversion plans are, by law, established as mandatory monopolies (i.e. all brand owners and first importers of the regulated product are required to join the IFO). The logic behind this mandatory monopoly model is that a single recycling program will create economies of scale and theoretically lower the costs of operating the recycling program. The legally defined purpose of the IFO is twofold: 1) to collect money from brand owners to pay for the operation of the program; and, 2) to collect the regulated products and arrange to have them recycled in accordance with a recycling standard developed by industry. An important characteristic of this WDA model is the fact that the environmental processing standard is enforced by the IFO by means of its commercial contracts with the processors with whom it deals. More simply put, the IFO ensures that the products it collects are processed in accordance with its standard by only agreeing to allocate the products its collects and to pay processors who agree to process the product in accordance with the IFO's standard.

This system of applying the environmental processing standard through the IFO works for products with negative recycling value (i.e. products where the cost of collecting and recycling the product exceeds the value of the materials that can be recovered) because nobody else other than those being paid by the IFO is interested in collecting or processing the material. In other words, nobody is interested in competing with the IFO for the product because they cannot make money in processing it. Hence, a majority or all the products are processed by the IFO in accordance with its processing standard.

ELVs however, are not a negative value recycling product. They are a positive value recycling product. In the case of ELVs, the value of the material that can be extracted from the product through processing exceeds the costs of collection and processing. Hence, the vast majority of vehicles are already being recycled because the value of the ELVs exceeds the cost of collecting and processing them. ELVs are a valuable raw "material" that businesses can generate a profit from through recycling.

That said, the main public policy concern with ELV recycling relates to the current levels of pollution resulting from inappropriate decommissioning practices. These sometime poor decommissioning practices are the result of a lack of mandatory and consistently enforced processing standards. While a standards enforcement problem may exist in today's ELV processing system, the principle problem with attempting to address this problem through a WDA IFO program is

that the WDA does not contain any regulatory mechanism that can ensure that recyclers and processors who chose not to process products under contract to the IFO, are required to process the product in accordance with the IFO's environmental processing standard. In the case of positive recycling value products like ELVs, processors can and will choose to compete with the IFO to collect and process the product, and when they do they will not be subject to any environmental processing standard. These "outside the program" players, unburdened by the IFO's environmental processing standard and its associated compliance costs, will have a significant competitive advantage in the market.

In the case of positive value ELVs the introduction of a WDA IFO run program would mean that the IFO and the recyclers contracted to this would find themselves in competition with a lower cost and largely unregulated market. To make matters worse, if the IFO had a targeted number of ELVs it was obligated to collect and recycle each year, it would likely need to implement significant financial incentives (i.e. "subsidies") to attract ELVs away from businesses in the unregulated market. Only with such subsidies could the ELV IFO gain control and physical possession of the ELVs so they could provide them to contracted processors (who as a condition of contract would have to process to the IFO's recycling standard).

In this WDA/ ELV IFO model businesses operating outside of the program plan would have absolutely no reason to improve their environmental standards and there are no regulatory mechanisms associated with the WDA that would force them to change their practices. In short, while this traditional WDA IFO model could work to address the environmental processing standards problem in the existing ELV processing system, it would be excessively costly to both manufacturers and consumers – the plan would essentially have to pay businesses currently flouting environmental standards to become transparent and accountable.

Effectively channeling ELVs through a WDA type plan would likely require financial incentives equivalent to a few hundred dollars per vehicle. These incentives would add significant ELV consumer recycling fees to new vehicle prices.

While some of the problems in the ELV recycling sector could be addressed by increased compliance and enforcement activity on the part of the Ministry of the Environment (MOE), in the view of the OARA, it is unrealistic to expect that that MOE, in light of other priorities and general government cost constraints, will commit the needed resources to significantly expand monitoring and enforcement activities related to ELV processors.

The OARA believes there is a much more effective and cost sensitive way to ensure that ELVs in Ontario are recycled in an environmentally responsible manner than designation under a new WDA management plan.

A market approach to regulating End-of-life-Vehicle Environmental Management in Ontario

In OARA's view a better approach to ELV recycling can be achieved by building on the existing market-driven system. More specifically, address the shortcomings of the existing system (i.e. lack of a common environmental standard) rather than imposing a WDA-like model that will fundamentally restructure the marketplace; generate significantly higher recycling costs; and deliver uncertain outcomes.

Better recycling outcomes can be achieved through the establishment of an independent oversight body tasked with administering a universal ELV recycling standard established under provincial law. This is similar to the administrative model used in Ontario to regulate businesses in a number of areas (e.g. electrical safety standards; technical safety standards, etc.).

The oversight body will license and monitor all businesses involved in ELV recycling including dismantlers, crushers and shredders, to ensure compliance with a common mandatory ELV processing standard. The oversight body would also report annually on the number of vehicles recycled and the disposition of materials associated with ELV recycling. It would be funded primarily by licensing fees paid by businesses licensed to recycle ELVs.

Unlike the WDA IFO model, the independent oversight body would not establish any quotas or direct the flow of vehicles within the vehicle recycling market - any business that meets the regulatory requirements established by the government and authorized or certified by the oversight body would be eligible to collect and recycle vehicles. The inherent value of vehicle materials and components in conjunction with an enforced environmental standard common to all ELV processors will ensure positive recycling outcomes. Market competition will ensure that cost effective recycling processes are utilized.

The new regulatory framework would include new offences (including fines and other penalties) to ensure that any business operating in the sector would be required to meet the mandatory ELV processing standard.

Key Elements

Key elements of the proposal would include the following:

1. All end-of-life vehicle processors would be subject to a common environmental standard codified in law (see proposed legal requirements below);
2. All businesses, dismantlers, crushers and shredders, involved in recycling ELVs would be licensed or certified and operate in accordance with the common standard and in compliance with other relevant local, provincial and federal environmental laws and regulations;
3. An independent oversight body with representation from vehicle dismantlers, crushers, shredders and manufacturers would be tasked with oversight of the common environmental standard and monitoring ELV recycling in Ontario including:
 - a. authorizing or licensing businesses that recycle end-of-life vehicles;
 - b. auditing compliance with the ELV environmental standard and other requirements;
 - c. compiling information and reporting annually on the number of ELVs recycled in Ontario each year along with a breakdown of materials disposition and recycling outcomes;
 - d. research related to potential future recycling of lower value vehicle components.
4. Only businesses authorized by the independent oversight body would be eligible to process ELVs in Ontario – there may be different classes of license for dismantlers, crushers and shredders;
5. The ELV oversight body would be financed primarily by registration/licensing fees paid by authorized recyclers (e.g. annual fee and per vehicle fee) - no consumer recycling fees on vehicle sales would be required or permitted.
6. Consumers or vehicle owners would have the ability to drop an ELV off at an authorized recycling facility at no charge;

The ELV Processing Standard - Proposed Legal Requirements

As noted earlier, OARA has worked extensively on the development of standards designed to improve the environmental practices of its members. OARA proposes the following legal requirements associated with a provincial environmental standard for processing ELVs:

- All end-of-life vehicles must have the following materials removed prior to crushing, shredding or processing for metal recycling:
 - fuels, including gasoline, propane, natural gas, ethanol and diesel;
 - oils and fluids, including engine oil, transmission fluid, brake fluid and power steering fluid;
 - antifreeze;
 - windshield washer fluid;
 - refrigerants;
 - lead-acid batteries; lead battery cables and lead tire weights;
 - mercury switches;
 - non-lead acid batteries (including nickel-metal hybrid and lithium-ion batteries);
 - oil filters;
 - fuel filters;
 - tires.

- Any materials that cannot be resold for reuse must be stored, transported and processed in accordance with provincial and federal requirements for such materials.

- Only businesses authorized by the independent oversight body will be eligible to dismantle ELVs.

- Only businesses authorized by the independent oversight body will be eligible to crush or shred ELVs.

- Any business or individual engaged in an activity for which authorization is required that operates without such authorization will be subject to fines and penalties – likely enforced through provincial court action.

- Any business that crushes, shreds or processes an ELV that has not been de-commissioned by an authorized ELV dismantler will be subject to fines and penalties administered by the vehicle recycling oversight body– including potential loss of license.

- All businesses that dismantle, crush or shred vehicles must operate in accordance with provincial and federal requirements regarding release of contaminants and spill management (non-compliance would be subject to penalties including loss of authorization):
 - different operating site requirements may be established for dismantlers, crushers and shredders;
 - businesses and individuals would be eligible for authorization in all categories
 - personnel must be appropriately trained and licensed.

Auditing and Reporting - Proposed Legal Requirements

- All businesses licensed to dismantle, crush or shred vehicles, would, as a condition of their license, be subject to audits by the independent oversight body to ensure compliance with the environmental standard and reporting requirements.
- All businesses authorized to dismantle, crush or shred vehicles, would be required to maintain records related to the number of vehicles processed and the associated quantity of materials disposition.
- All businesses licensed to dismantle, crush or shred vehicles would be required to report annually to the independent oversight body on the number of ELVs processed and provide information on materials disposition as required.
- The independent oversight body would produce an annual report identifying the number of ELVs processed in Ontario annually along with a breakdown of materials disposition including:
 - volumes of materials reused or resold;
 - volumes of materials diverted for recycling.

Oversight: End-of-Life-Vehicle Industry Management Council (ELVIMC)

Establishment

Under the *Safety and Consumers Statute Administration Act, 1996* (SCSAA), the government has the authority to designate administration of designated statutes or regulations to independent not-for-profit corporations known as administrative authorities. The government has established a number of administrative authorities to administer various provincial statutes including the Electrical Safety Authority, the Real Estate Council of Ontario, the Ontario Motor Vehicle Industry Council and the Technical Safety and Standards Authority.

An independent ELV Industry Management Council could be established under authority of the SCSAA in conjunction with regulatory amendments to the *Environmental Protection Act* to establish an environmental standard for processing end-of-life vehicles.

Such an oversight body could also be established under a stand-alone statute. The Vintners Quality Alliance Ontario is one example of an independent oversight body established to administer provincial standards related to the production of Ontario wines.

Governance

In the view of OARA, it is important that businesses involved in recycling end-of-life vehicles be involved in the development and administration of rules related to how those ELVs are managed, processed and tracked. One of the current shortcomings of the WDA is that plans are often developed with little involvement or input from the businesses engaged in recycling the relevant products (i.e. plans are developed by businesses that manufacture or sell the products, not businesses that recycle the products. OARA members and other ELV recyclers will also be paying for the oversight of recycling standards and the administration of licensing fees).

The authorizing legislation and regulations would set parameters around oversight body composition but OARA envisions majority representation from businesses involved in end-of-life vehicle recycling: dismantlers, crushers and shredders, selected by regulated members, along with representation from vehicle manufacturers, or certain other component manufacturers, and possibly representatives appointed by the government.

Financing

As noted earlier, the proposed oversight body would be financed primarily through licensing fees paid by licensees – i.e. those businesses, dismantlers, crushers and shredders, that apply for authorization under the new regulatory framework.

Those licensing fees could potentially include a base amount and a per ELV fee so that a registrant's licensing fee was partially a function of the number of ELVs the business processed each year.

Other revenue sources could include administrative penalties imposed by the recycling oversight body on registrants and for violations such as failure to submit reporting information on time or breaches of the environmental standard.

While a full cost estimate would be dependent on the finalized functions of the vehicle recycling board, in the view of the OARA, such a licensing oversight body could function effectively with a budget that is significantly lower than the steward fees that would likely be associated with ELVs under a typical WDA diversion plan.

Future Improvements to Vehicle Recycling

While OARA views the administration of a licensing regime and enforcement of a common environmental standard as the potential vehicle recycling board's top priority, one of the additional mandates of such an oversight organization would

be to undertake research related to whether and how additional vehicle components could be recycled.

With existing technologies, the costs associated with recycling low value vehicle components such as glass and plastic appear to outweigh the value of the resulting recyclable products. In other words, this type of recycling requires significant financial subsidization.

Whether landfill pressures in Ontario justify the expense of implementing such recycling initiatives for ELVs is, in the view of OARA, an issue that requires further research and study. Most vehicles are processed at the end of life in Ontario and a large percentage of these vehicles by weight is recycled. A recent study comparing ELV recycling outcomes in Germany with the U.S. market has suggested that the percentage of the vehicle by weight which is recycled in the two markets is roughly comparable even though European Union regulations require recycling of secondary materials such as glass and plastic. The U.S. markets had a higher percentage of parts reused, while the German model recycled a higher percentage of secondary materials such as plastic and glass.⁹ Until the vehicle recycling industry is brought up to a level playing field, whether the costs associated with recovering additional vehicle components in Ontario is reasonable in relation to the environmental impact requires further study.

In the view of OARA it would be premature to implement an ELV management plan in Ontario which required a certain percentage of the vehicle to be recycled or which required the immediate development of new recycling processes for ELV materials with negative recycling value. It would make more sense to review and study these issues once the oversight body has developed a baseline of data for ELV processing and recycling in Ontario and the common environmental standard for recycling vehicles is well established across the vehicle recycling sector. The first priority for an oversight body will be to raise and equalize operating standards for businesses active in the sector.

Once the negative environmental impacts of existing ELV processing have been adequately addressed, the vehicle recycling oversight body will be in a better position to review and monitor evolving recycling technologies and associated costs and benefits. This could include a review of practices in other jurisdictions and consideration of potential harmonization initiatives. The environmental standard would remain the government's responsibility, but the oversight body as the standard's administrator, could be required to provide advice to the government on potential changes or improvements to the standard over time.

⁹ "A Failing Grade for the German End-of-Life Vehicle Take-Back System", Nina Nakajima and Willem H. Vanderburg, Bulletin of Science Technology Society, 2005: 25: 170.

Related Legal Amendments

Currently, businesses involved in end-of-life vehicle recycling are subject to a patch work of different regulatory requirements. Some of these, such as the derelict vehicle exemption under the Ontario EPA have been noted earlier.

In addition to EPA provisions, the Ministry of Transportation also licenses many ELV processors through garage licenses.

As part of this initiative, the government may also wish to review potential implementation of a formalized process to terminate Vehicle Identification Numbers (VINs). Such a process may prove helpful in directing ELVs to licensed dismantlers and generating accurate data regarding the number of vehicles, including other pertinent information, that are retired annually in Ontario each year with the added benefit of keeping write-offs from re-entering the market.

Establishing an Ontario Vehicle Recycling oversight body would create an opportunity to rationalize the patchwork of licenses, exemptions and regulatory requirements that currently apply to vehicle recycling operations.

Conclusion

As stated at the outset, the Ontario Automotive Recyclers Association supports the establishment of an independent vehicle recycling oversight body to administer and enforce a common environmental standard for processing ELVs in Ontario.

All businesses involved in ELV dismantling, crushing or shredding would require authorization from the new board. The oversight body would produce an annual report providing data on the number of end-of-life vehicles recycled each year and the disposition of materials associated with vehicle recycling.

In the view of OARA, an independent oversight body would be far more effective in enforcing a mandatory recycling standard for ELVs than any program convened under the province's *Waste Diversion Act* which relies on the stewards imposing a standard through contracts with those to whom they provide vehicles for recycling.

Further, the costs of running such a licensing body would be far less than a potential ELV management program established under the authority of the WDA. The level of financial incentives required to redirect ELVs under a typical WDA plan would be prohibitive. Enforcing a mandatory environmental standard through licensing will add some costs but the economic value of materials contained in end-of-life vehicles will continue to ensure a high recycling rate for ELVs in Ontario.

This approach builds and expands upon the existing competitive dynamic in the ELV recycling marketplace and will ensure that environmental operating standards are improved in a cost effective manner across the ELV industry. There will be little risk that the existing high recovery rates will be disrupted from a relatively low level of intervention or disruption of existing market relationships.

The proposed approach could be applied across the country to result in consistent, national effective and efficient end-of-life vehicle management program in Canada.