

# BC Automotive Recyclers' Guidebook

FACILITY SELF-ASSESSMENT AND THE DEVELOPMENT  
OF A POLLUTION PREVENTION PLAN



FINANCIAL SUPPORT BY ENVIRONMENT CANADA  
THROUGH THE FRASER AND GEORGIA BASIN INITIATIVES  
&  
THE MINISTRY OF ENVIRONMENT, LANDS AND PARKS

SEPTEMBER 1999



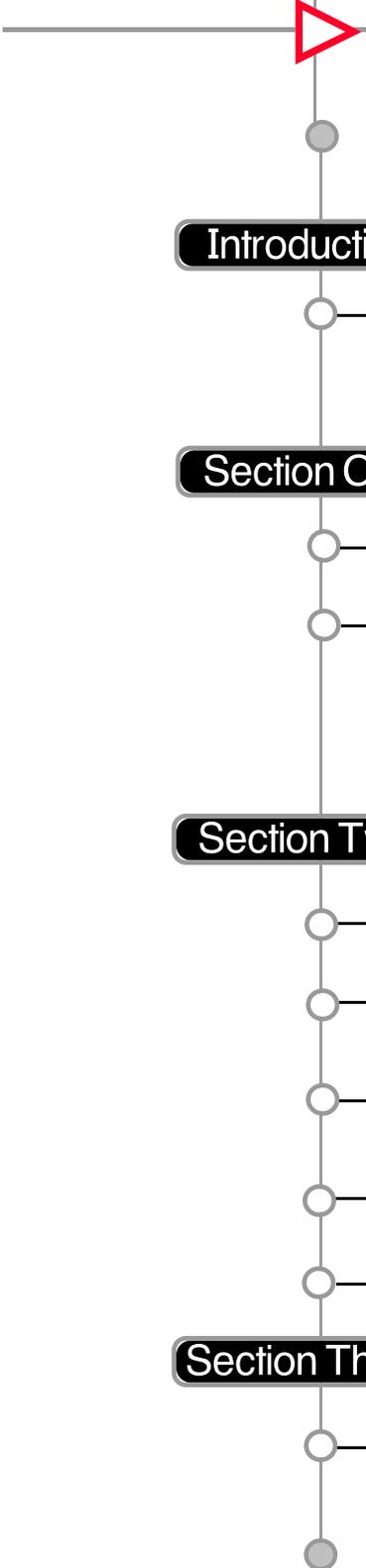
The Automobile Recyclers' Environmental Association's Guidebook is designed to assist automotive recyclers and dismantlers meet or exceed the requirements of their environmental code of practice. The guidebook is divided into an introduction and three sections. The first section focuses on the key elements of the environmental management program and the certification process. The second section focuses on the environmental code of practice and the materials developed to undertake an inspection of a facility and develop a pollution prevention plan. The third section contains examples of the score sheets and planning templates used during the certification process.

The primary purpose of the guidebook is to provide the environmental coordinator of a facility sufficient information and guidance to undertake a self inspection and develop a comprehensive and effective pollution prevention plan for the site.



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## Recycled vehicles



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**T**he environmental program for the dismantlers and recyclers started in 1993 when the Executive of the BC Automotive Recyclers initiated the development of an environmental code of practice. Today, the environmental program has evolved into a simple yet comprehensive set of scoresheets and templates that dismantlers and recyclers can use to improve the management of hazardous materials, prevent pollution and manage existing contamination. Currently, the automotive dismantlers and recyclers are leaders in North America in the area of environmental protection and pollution prevention and will be the model by which the environmental programs of other small businesses will be judged.

Key elements of the environmental program outlined in this guidebook are:

- independent inspection of dismantlers and recyclers to verify compliance to the environmental code of practice;
- scoresheets and planning templates to identify inadequate practices and schedule environmental improvements; and,
- requirement that all dismantlers and recyclers be certified to the environmental code of practice.

## ACKNOWLEDGEMENTS

The following organizations made significant financial contributions to the development and implementation of the environmental program:

- Environment Canada through the Georgia and Fraser Basin Initiatives (Lisa Walls, 604-666-6262)
- Ministry of Environment, Lands and Parks (Ron Driedger, 250-387-8897)
- Ministry of Transportation and Highways (Al Planiden, 250-387-7771)
- Insurance Corporation of BC (Richard Greene, 604-443-4669)

The following individuals have made significant contributions to the development and implementation of the environmental program:

- Neil James, Chair, Environment Committee, BC Automotive Recyclers Executive
- Bob Clarke, Executive Director, Automotive Retailers Association
- David Scarrotts, Automotive Retailers Association
- Members of the BCAR Executive



## STEWARDSHIP PROGRAM

### ADMINISTRATION OF THE PROGRAM

The environmental program for dismantlers and recyclers will be managed by a non-profit association entitled *The Automotive Recyclers Environmental Association* (AREA). The Board of Directors of AREA are made up of members from the dismantling and recycling industry and the Automotive Retailers Association.

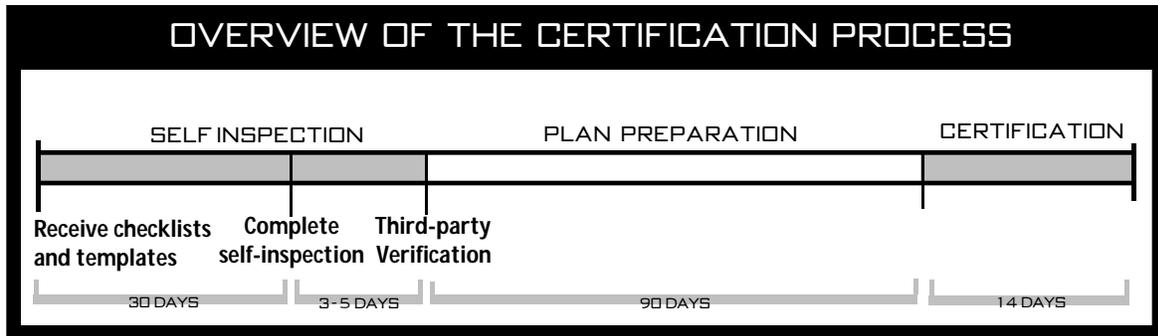
AREA was formed in the fall of 1997 to provide a variety of non-profit services to the automotive dismantling and recycling industry for the purpose of:

- developing and administering the industry's certification process and the stewardship programs related to the environmentally safe removal, transportation, reuse or recycling of hazardous materials;
- overseeing the communication of information and the on-going training of the industry;
- working in partnership with the Ministry of Environment, Lands and Parks, Environment Canada, the Insurance Corporation of BC and other partners to develop, implement and administer the environmental management system in an effective and efficient manner.

Please contact Mr. David Scarrots at 604-432-7987 if you would like more information on the environmental program for dismantlers and recyclers.

## CERTIFICATION PROCESS

The following steps must be completed within a 12 month period for a facility to achieve or maintain its certification:



### Step 1: Receipt of updated Assessment scoresheets and planning templates:

Two weeks before March 1 of every year, the owner or general manager of each facility will receive a package of certification materials. The package will contain an updated copy of the guidebook, the Assessment scoresheets and P2 planning templates. The package will contain all the information and materials a dismantler and recycler requires to complete the certification process.

### Step 2: Environmental coordinator completes self-inspection

The environmental coordinator reviews the information in the package and has 60 days to undertake a self-inspection of the facility. The results are mailed to the AREA office by April 30. Note that the self-inspection is not expected to take the environmental coordinator more than one to two hours to complete.

### Step 3: Independent Inspection:

The facilities will be inspected by an independent inspector over the next six months. In the first year, the facility will be given no less than three days and no more than five days notice of an inspection. In subsequent years, no notification will be given by the independent inspector. The environmental coordinator is requested to be available to answer questions from the inspector.

The inspector will sign the inspection sheet, leave a copy of the inspection results with the environmental coordinator and send a copy to AREA.

**Step 4: Prepare P2 Plan:**

The environmental coordinator will review results of the self-inspection and of the independent inspector and prepare a pollution prevention plan that must be signed by the facility manager or owner. The pollution prevention plan must be completed, signed and submitted to AREA within 90 days of the independent inspection.

**Step 5: Certification of Facilities:**

AREA will summarize the results of the inspections and undertake one of five actions (listed below) depending on the results of the inspections and the pollution prevention (P2) plan submitted by the environmental coordinator:

1. P2 plan not signed by manager or owner:  
AREA will return the P2 plan for signature. A facility cannot be certified until the P2 plan is signed by the owner or manager.
2. P2 plan signed by manager or owner that does not address the deficiencies recorded by the independent inspector:  
AREA will return the P2 plan to the environmental coordinator for modification if it does not address the deficiencies identified by the independent inspector. The owner will be required to improve the P2 plan and resubmit the plan to AREA.
3. The facility did not complete the commitments in the current P2 plan and the facility has failed a subsequent independent inspection:  
AREA will not certify the facility and the facility owner or manager must arrange with AREA for a re-inspection. The facility must undertake the necessary improvements and arrange with AREA for a re-inspection. The facility must pay for and pass the re-inspection before being certified.
4. The facility has failed the independent inspection but the P2 plan signed by manager or owner addresses the deficiencies observed by the independent inspector:  
AREA will certify the facility for certification under the condition that the corrective actions in the P2 plan are completed prior to the next inspection. Failure to address the deficiencies by the next independent inspection will result in the facility not being certified.

5. Facility has passed the independent inspection and the P2 plan has been signed by the manager or owner:  
AREA will certify the facility for certification without conditions.

**In the Municipality of Abbotsford, automotive recyclers and dismantlers will not be able to renew their business licences in the forthcoming year unless they have been certified (with or without conditions) by AREA in the previous year.**



## ENVIRONMENTAL CODE OF PRACTICE AND CERTIFICATION REQUIREMENTS

### SUMMARY OF THE ENVIRONMENTAL CODE OF PRACTICE:

With the cooperation and financial support of Environment Canada, the industry prepared and published an Environmental Code of Practice. The original publication was entitled: *Code of Practice for the Automotive Recycling Industry in British Columbia*. The code was prepared by El-Rays environmental Corp.

The original environmental code of practice formed the basis of the score sheets and planning templates that are used to certify a facility. Section 3 summarizes the score sheets used by the inspectors and the pollution prevention planning templates used by the environmental coordinator.

Contact Mr. David Scarrots at 604-432-7987 if you would like additional copies of the original environmental code of practice or the score sheets and planning templates in Section 3.

### SELF INSPECTIONS:

Each facility is required to undertake a self-inspection of the facility within 60 days of the start of the certification process (see Section 1 on the Certification Process). An environmental coordinator that has met the training requirements should be able to complete a self-inspection of an average facility within one to two hours.

The purpose of the self-inspection is to:

- ensure the practices at the facility have not decreased prior to the last independent inspection;
- identify those processes, products or activities that will need to be changed to achieve certification; and,
- determine the environmental coordinator's ability to understand and implement the environmental code of practice.

To undertake a self-inspection, the environmental coordinator must use the scoresheets for that year. The self-inspection process is divided into three steps: overview of facility, inspection of production or storage areas and summary of results. The details of each step are outlined below:

#### OVERVIEW OF FACILITY:

The first page of the scoresheet provides an overview of the production and storage areas within a typical facility and the flow of ELVs and hazardous materials between those areas. Before the facility can be inspected, the environmental coordinator must modify Figure 1 to describe the production and storage areas for that facility. The purpose of Figure 1 is to show the flow of hazardous materials within a facility - it is not intended to be a detailed facility profile.

Production areas are any location that dismantling or recycling occurs. Storage areas are any location that ELVs, parts, hazardous materials or hulks are stored. The description of the various production and storage areas are:

#### **Receiving/Testing Area:**

The area where ELVs entering the facility are dropped. The ELV is typically inspected for leaks, cataloged (e.g. VIN) and stored before being moved to a testing or dismantling area. The ELVs' systems are tested (e.g., engine, electronics, starter motors etc.). The testing area is where the systems of the ELVs are tested (e.g., engine, electronics, starter motors etc.).

#### **Dismantling Area:**

The area where parts, hazardous materials, batteries, ODS other metals are removed from the ELV. This is the area where the majority of the hazardous materials are removed.

#### **Hulk Storage Area:**

The storage area for hulks (a hulk is an ELV that has had its hazardous materials removed and its VIN reported).

#### **Crusher Area:**

The area where the hulks are crushed and loaded onto trailers for transport to the steel recyclers. If a mobile crusher is used, then record the name of the mobile crusher used by the facility.

**Fluid Storage and Handling:**

The infrastructure and practices to manage hazardous residuals.

**Materials Management:**

Those areas with parts that could leak hazardous materials (e.g. differentials, engines) are of concern. Typically a facility will have a variety of storage tanks and hazardous materials on site.

**Parts Storage Areas:**

Those areas that store hazardous solids (e.g., sludges, mercury switches, batteries etc.), liquids (e.g., antifreeze, oils, windshield fluid, etc.) and gases (e.g., R12, HFC 134a, propane, etc.). The environmental coordinator should also include hazardous materials used by the dismantler or recycler (e.g. solvents, fuel etc).

The environmental coordinator should cross out any production or storage areas that do not apply to the facility. For example the testing area should be crossed out if the ELVs go directly from the receiving area to the dismantling area.

The environmental coordinator should then connect the boxes to describe the flow of the ELVs, parts and hazardous materials. If a mobile crusher is used on site, indicate the name of the company. The materials within a production or storage area can have more than one pathway, consequently, there can be more than one arrow entering or leaving a production or storage area.

The finished diagram (see Section 3 for an example) should provide the environmental coordinator, the owner or manager and the independent inspector an overview of the flow of hazardous materials within the facility.

**SELF-INSPECTION:**

Each facility will undertake an annual self-inspection using the scoresheets that have been approved by the Ministry of Environment, Lands and Parks and sent to the facility by AREA. The score sheets used by the facility will be the same scoresheets used by the independent inspector.

The general structure of the score sheet is:

- the different management and production areas to be evaluated on the left side of the page;
- the possible management practices in the centre of the page; and,
- the result on the right side of the page.

<b>2.2 DISMANTLING AREA:</b>						
<b>PAD LOCATION</b>	indoor (10)		covered outdoor (5)		uncovered outdoor, or no dedicated area (0)	
<b>PAD MATERIAL</b>	sealed asphalt or cement (10)	unsealed asphalt (8)		cracked asphalt or cement (2)	gravel or soil (0)	
<b>PAD DRAINAGE</b>	pad not washed; sponge or absorbent used (10)	pad washed with water or steam only (5)	pad washed with water & low-toxicity detergent (3)	pad washed with water & regular detergent (2)	pad washed with solvent (0)	
<b>TOTAL SCORE ON THIS SHEET</b>						
<b>MAX.POSSIBLE SCORE ON THIS SHEET</b>						

The possible management practices are simply a summary of the best management practices and the minimum requirements of the environmental code of practice. Each management practice is given a score based on its effectiveness to prevent pollution. For example, a sealed asphalt or cement dismantling pad (score 10/10) is more effective than gravel or soil (score 0/10). If a site has a sealed asphalt or cement dismantling pad, then the inspector should record a 10/10 in the result column.

If an activity has an "F" instead of a score, then that activity is either a direct violation of Federal or Provincial environmental regulations or the approved environmental code of practice (F=fail). For example, the discharge of drainage from the dismantling pad to a stream would be a direct violation of the Federal *Fisheries Act* while the discharge of the drainage to a storm drain would be a direct violation of the environmental code of practice. Both activities would receive an "F" in the result column. In extreme situations, an activity can be given up to three "F"s.

During the phase-in period, each facility will be allowed some “F”s and still achieve certification. It must be emphasized that this is a temporary condition and at the end of the *second* year, a certified facility will not have any “F”s.

During an inspection, the sections of the score sheets that are not applicable to the facility are identified with a N/A (not applicable). For example, if a facility does not have underground storage tanks, then all references to the underground storage tanks should be identified with a N/A.

The actual score and the maximum score (e.g., 8/10) for each line of the score sheet should be recorded in the “Score” column on the right side of the page and summarized at the end of each section. The environmental coordinator is required to calculate a percentage for each of the sections of the score sheets. The percentage can be calculated using the following equation:

$$\text{percentage} = (\text{actual score} / \text{maximum score}) * 100$$

The actual score is the sum of the scores for line in the section. The maximum score is the highest score for each line in the section.

The P2 plan template (see next section) will summarize the results of the inspection and the number of “F”s that are acceptable during the phase-in period and the minimum percentage acceptable for each of the management, production or storage areas.

#### POLLUTION PREVENTION (P2) PLAN:

The goal of a Pollution Prevention (P2) plan is to summarize the results of the previous and current inspections, describe the problems at the facility, develop appropriate corrective actions, assign responsibilities and timelines; and, obtain management support for the corrective actions.

The templates for the pollution prevention plan are summarized on one 11x 17 sheet of paper that is provided in Section 3.

It is recommended that after the self-inspection a draft P2 plan be prepared and the minor and simple corrective actions be taken before the independent inspector undertakes an inspection (this is just a recommendation).

## PREPARATION OF A P2 PLAN:

### First Page of P2 Plan

The first page summarizes the general information on facility including the number of ELVs processed at the facility in the previous calendar year.

The facility environmental coordinator should ensure the information on the front page is current. Ideally, the only information for the environmental coordinator to research is the number of ELVs processed at the facility in the previous calendar year.

### Centre Page of P2 Plan

The centre page of the 11X17 sheet is divided into three distinct sections. On the far left of the page is a summary of results for the eight possible production or storage areas. The summary includes the previous results of the independent inspection, the current self-inspection and the current year's certification requirements.

SAMPLE SUMMARY OF INSPECTION			
ACTIVITY	RESULTS		CODE
Dismantling Area	2000 INSPECTION RESULTS		2000 CODE
2000 Results	Self	Verified	Requirement
#F's _____	#F's		
Score _____	Score		
% _____	%		

Cross out those production or storage area that are not appropriate for the facility. Please ensure the sections crossed out are consistent with the facility overview diagram prepared during the self-inspection (*Figure 1 in Section 3.*)

The environmental coordinator should summarize the results of the self inspection score sheets in the column title "Self". The environmental coordinator should tally the number of "Fs" and the score for each production and storage area. The score should be recorded (e.g., 58/102) and a percentage calculated (e.g., 57%).

The last column within the summary of results is the minimum requirements needed to be certified in the Year 2000. This column allows the owner/manager and environmental coordinator to assess the results of the inspections with the current year's certification requirements. That comparison will identify areas of deficiency that will form the basis of the development of the corrective actions within the pollution prevention (P2) plan.

A P2 plan is simply an approved list list of corrective actions that addresses the observed problems at a facility (i.e. deficiencies with respect to the environmental code of practice). The P2 plan covers the majority of the centre section of the template.

P2 PLAN	
MANAGEMENT	DESCRIPTION OF PROBLEM
RECEIVING	DESCRIPTION OF PROBLEM
DISMANTLING	DESCRIPTION OF PROBLEM

The first column provides a space for the environmental coordinator to describe the problem(s) observed during the inspections. Examples of typical problems are:

- oil could leak from an underground storage tank;
- surface runoff washes oil and grease into nearby stream;
- oil from pulled engines drains into ground;
- ELVs are leaking oil and antifreeze in receiving area before hazardous materials have been removed;
- do not have a copy of waste transporter's hazardous waste transport license.

The first column on the second page provides the space for the environmental coordinator to describe the proposed corrective action for a problem. For ideas on how to best address the problem, the score

sheets provide a comprehensive list of the best management practices to prevent pollution. The options on the left side of the score sheet have higher scores because they are the best management practices currently used in the industry. Environmental coordinators should choose a corrective action and then record in the next column the increased score that will result when the corrective action is completed.

P2 PLAN			
CORRECTIVE ACTION	Change in Score	Completion Date	Responsibility
CORRECTIVE ACTION			
CORRECTIVE ACTION			

To calculate the change in score, simply subtract the current score from the score from the new management practice and record the number of "Fs" that the corrective action will eliminate. The percent is calculated by dividing the change in score by the maximum score possible for the score sheet.

Completion dates should not exceed beyond the period to the next self-inspection - April of next year. Large projects that take more than one year to complete should be broken down into smaller tasks that can be completed before April of next year.

The last column in the P2 plan is to assign responsibility for the action and set a completion date. Completion dates should not exceed beyond the period to the next self-inspection - April of the next year. Large projects that take more than one year to complete should be broken down into smaller tasks that can be completed before April of next year.

The final component within the centre page provides an idea of the score for the facility one year in the future. The first column provides a summary of the results from the independent inspector. This column can simply be filled in by transferring the results from the left side of the centre section to the column.

The second column provides an estimate of the predicted results one year in the future after all the corrective actions have been implemented successfully.

You can calculate the predicted results by using the following equations:

SAMPLE ONE YEAR FROM NOW			
ACTIVITY	RESULTS		CODE
Dismantling Area	PREDICTED 2001 RESULTS		2001CODE
Improvement	Self	Verified	Requirement
#F's _____	#F's		
#R's _____	#R's		
Score _____	Score		

$$\text{Future Number of "Fs"} = (\text{number of "Fs" in 2000}) - (\text{number of "Fs" eliminated through the actions outlined in the P2 plan})$$

$$\text{Future Score} = ((2000 \text{ score} + \text{change in score}) / \text{maximum score}) * 100$$

The last column in the centre section is the 2001 certification requirements. The environmental coordinator and owner/manager can tell at a glance if they will be able to become certified in the subsequent year if they complete the P2 plan. If the predicted score for the facility does not meet or exceed next years certification requirements, then the environmental coordinator would be well advised to increase the number or quality of the corrective actions in the pollution prevention plan.

**Last Page of P2 Plan**

The last page of the P2 plan provides space for signatures. The environmental coordinator will sign the last page when he self-inspection is completed. The independent inspector will sign the last page when the independent inspection is completed. The manager or owner will sign the last page when the P2 plan is completed. A representative from the Automotive Recyclers Environmental Association will sign the last page after the facility is recommended or not recommended for certification.

[SECTION THREE]

Recycled Vehicles



A series of 20 horizontal lines for writing.