

REPORT TO

ALBERTA RECYCLING MANAGEMENT AUTHORITY

COMPLIANCE ASSURANCE SUMMARY REPORT (2017 – 2018)

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1.0 INTRODUCTION

The Alberta Recycling Management Authority (Alberta Recycling) has been mandated through regulation to administer electronics recycling programs in Alberta. On September 15, 2004, Alberta Recycling adopted the "Waste Electronics Incentive Program" (the Program). The administration of the Program is carried out by Alberta Recycling.

Municipalities collect waste electronics for recycling at municipal collection sites that are registered with Alberta Recycling. In addition, Registered Processors may collect waste electronics from industrial, commercial, and institutional (ICI) clients. Collected materials are transported to a Registered Processor's site for processing and/or recycling. To become a Registered Processor and to be eligible for incentives paid under the Program, processors must meet the Registered Waste Electronics Processor Incentive Program Requirements, as well as terms and conditions specified under the Program, and be registered with Alberta Recycling.

At the time of the implementation of the Program in Alberta, there were three electronics processors who had applied to Alberta Recycling and had become Registered Processors under the Program. Additional processors have become registered since that time while some former Registered Processors have ceased operations or discontinued their participation under the Program. As of March 31, 2018, there were seven Registered Processors under the Program.



2.0 ALBERTA'S ELECTRONICS RECYCLING COMPLIANCE ASSURANCE MODEL

In order to monitor conformance to Program requirements (which includes compliance with applicable environmental, and occupational health and safety regulations, as well as industry standards related to health and safety), Alberta Recycling has developed "Alberta's Electronics Recycling Compliance Assurance Model". This model structure describes the various audits, reviews and assessment processes that are undertaken to evaluate and help ensure processors conformance to the Program requirements. Intended to be flexible, compliance assurance activities are assessed and the model is adjusted as appropriate, based on findings and the advancement of the Program.

As part of the compliance assurance process, Alberta Recycling commissions audits of the Registered Processors and downstream processors, as well as the evaluation of new applicants.

Compliance assurance activities that have been conducted by JADA Solutions (HSE) Inc. (JADA Solutions) on behalf of Alberta Recycling include the following evaluations, audits and reviews:

- Applicant Evaluations (and Initial Assessment)
- Processor Compliance Audits (PCA) of Registered Processors
- Downstream Processor Reviews (preliminary assessments, desktop studies, site visits and/or on-site audits)



3.0 APPLICANT EVALUATIONS AND INITIAL ASSESSMENTS

The processor registration procedure is carried out when a new processor application is submitted to Alberta Recycling. Following submission, the applicant is evaluated against the Registered Processor Compliance Requirements in order to make recommendations to Alberta Recycling regarding the credentials and ability of the processor applicant, and their suitability for registration under the Program. In order to complete this process, the information contained in the processor application submitted to Alberta Recycling is reviewed. The evaluation involves an assessment of the content and completeness of the required information, including the application forms submitted by the applicant, a company overview and details regarding the environmental management and health and safety systems, insurance and Workers Compensation Board coverage. Information found during an internet search on the subject of the applicant company is also considered.

In addition to this documentation review and research, an initial assessment is completed in order to determine the scope and extent of the applicant's operations, to clarify information provided in the application, and to identify those elements that may require further clarification or investigation. This initial assessment, which may include a site visit, also facilitates the completion of other audit and review activities required by Alberta Recycling with respect to the Program.

At the applicant evaluation stage, information regarding transportation companies (carriers) that will be used by the processor is reviewed. Downstream processors to which the Program materials will be directed (as indicated on the application form) are also reviewed.

Based on the findings of the applicant evaluation and initial assessment, one of the following recommendations is made to Alberta Recycling in respect of the application:

- To request that the applicant provide additional information or to clarify information provided in the application and to reassess the applicant.
- To award the applicant an interim (six month) approval processor status until the initial processor program audit in order to evaluate the processors compliance to the Program.

Subsequent to the applicant being awarded interim (six month) approval processor status:

• To award the applicant full status as a Registered Processor under the program, an initial PCA is conducted following interim approval to assess suitability for the program and address any deficiencies prior to being granted full status.



Subsequent to the initial PCA, the auditors further recommend to Alberta Recycling:

- To award the applicant full status as a Registered Processor under the program, based on the findings of the initial PCA and the corrective actions taken by the processor, within the approved timelines, to address any deficiencies identified during the audit.
- To suspend temporary processor status due to the processors failure to resolve, within the approved timelines, the deficiencies identified during the audit.
- To not register the applicant.

If necessary, the applicant evaluation and initial assessment process may also involve periodic on-site inspections (monitoring) during commissioning in order to assess site activities and performance, and to assist the processor in addressing any issues related to the conformance to the Program requirements.

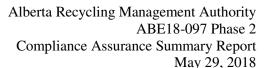
4.0 PROCESSOR COMPLIANCE AUDITS (PCA)

On-site PCAs of each Registered Processor are performed to evaluate conformance to the Program requirements. Appropriate protocols were developed based on the Registered Waste Electronics Processor Incentive Program Requirements and are used as a framework for collection of information during the PCA; these protocols are reviewed and updated annually to ensure that the audit criteria remain current. The audits include a review of health and safety, environmental management, regulatory requirements, operations and transportation. PCAs are carried out annually at each Registered Processor facility.

Depending on the findings of the PCA, follow-up is conducted via telephone or email correspondence. Where appropriate follow-up visits to the Registered Processors facility may be conducted to ensure that any deficiencies identified during the audit are properly addressed in a timely manner.

5.0 DOWNSTREAM PROCESSOR REVIEWS

When a Registered Processor or a new applicant seeks to direct Program material to a new downstream processor, a preliminary assessment of the proposed downstream processor is conducted. The preliminary assessment is based on the information provided by the Processor or applicant and any additional information that may be publicly available regarding the downstream processor's facility. The preliminary assessment does not distinctively draw conclusions regarding conformance to the Program requirements pertaining to the downstream processor, though Program requirements are considered in the collection and review of information. A recommendation is made regarding the appropriateness of approving the proposed facility as a downstream processor under the Program.





Once the downstream processor receives electronic materials (Waste Electronics) from the Registered Processor(s) under the Program, Alberta Recycling occasionally requests additional review of the downstream processors facility (desktop studies) which generally includes telephone interviews with personnel from the downstream processing facility, and a review of any documentation provided by the Registered Processor and/or the downstream processor pertaining to materials ultimately receiving funding under the Program. Internet research is conducted, including a review of company websites, and available environmental regulatory approval and compliance history.

The need to conduct a site visit and/or an on-site audit of the downstream processors facility, based on the findings of the preliminary assessment and/or desktop studies (i.e. telephone interviews, document review and research) is determined on a case-by-case basis by Alberta Recycling.

These reviews are aimed at evaluating whether the facilities downstream (and transporters) conform to the Program requirements (that they possess all appropriate permits or certifications, that they process materials in an environmentally sound manner and that they safeguard the health and safety of employees). Information obtained from the downstream processor is also reconciled with that provided by the Registered Processor (quantities of materials shipped and received, and verification of end of life).

6.0 SCHEDULE AND FLEXIBLILITY

The schedule and nature of the audits and reviews conducted as part of the compliance assurance model are established with a view to ensuring conformance to the Program requirements, legislated Health, Safety and Environmental requirements as well as current industry standards, which continues to be the key objective of the model. As the program evolves, compliance assurance activities are reassessed and the model is adjusted as appropriate.

The compliance assurance process is intended to be flexible such that the scope and/or frequency of a given type of audit or review of a Registered Processor or a downstream processor may be adjusted, if it is the considered necessary to do so, based on audit findings. For example, the frequency of an audit or review may need to be increased, or different types of compliance assurance activities may be implemented, if any issues are observed.



7.0 COMPLIANCE ASSURANCE ACTIVITIES APRIL 2017-MARCH 2018

A number of compliance assurance activities have taken place since those captured in the last summary report issued in June of 2017. These activities (from April 2017 to March 2018) are shown in the tables in Appendix A and are briefly described below.

Compliance assurance activities associated with Registered Processors from April 2017 to March 2018 included PCAs of all of the seven Registered Processors currently participating in the Program. Follow-up communications took place with each Registered Processor to ensure that identified deficiencies had been resolved.

Compliance assurance activities associated with downstream processors from April 2017 to March 2018 included five downstream processor audits. Follow up communications took place to ensure that any identified deficiencies had been resolved.

In addition to these specific audit and review activities, JADA Solutions has undertaken, at the request of Alberta Recycling, the following in relation to compliance assurance with respect to the Program:

- Preparation of summary and diversion reports as requested
- Site inspections
- Assistance in responding to issues raised

The summaries contained in the sections below are based on the findings of the PCAs of Registered Processors conducted between April 2017 to March 2018, as well as the findings of any downstream processor review activities and any applicant evaluations conducted during the same timeframe.

7.1 Waste Electronics Activities

Incoming Waste Electronics comes in from various collection sites and other customers, in some cases Registered Processors may pick up electronic waste from ICI clients.

Eligible materials are sorted from ineligible materials and quantities of eligible materials are weighed and tracked by the Registered Processor. Activities at the Registered Processors facilities consist of receiving, sorting, processing and packaging processed electronic materials for shipping to a downstream processor. Processing normally involves the dismantling of the Waste Electronics materials into its component parts (i.e. circuit boards, metals, plastics, wire and glass). Both automated equipment and manual labour is used to carry out the sorting, dismantling and processing operations.





In general, improvements to operations through the purchase of new equipment or changes to procedures are made by Registered Processors. In some cases, changes to the procedures are necessary based on changes to the design and construction of the electronic products that are being recycled. Registered Processors investigate new options for processing and/or hazardous waste management of new materials as new technologies surface.

Based on observations made during the PCAs, Registered Processors continue to make efforts to improve their operations. Some have purchased new equipment, relocated their facility and even integrated and expanded health safety and environmental programs in order to improve processing efficiencies and to comply with Program requirements.

Weigh scales used at Registered Processor facilities are calibrated annually and scale tickets are automatically generated, enhancing the integrity of information reported to Alberta Recycling regarding the quantities of Waste Electronics materials received and processed.

7.2 Conformance to the Program Requirements

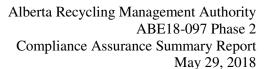
Under the Program, Registered Processors must identify and comply with all applicable legislative requirements, as well as industry standards related to health, safety and environment. Since the Certification of Recognition (COR) program is widely accepted as an industry standard, COR requirements have been adopted as the acceptable industry standard in this regard. All Registered Processors have a health and safety program in place, and some elements of an environmental management system. The wholeness of those programs, and the extent to which they have been implemented, vary among the Registered Processors.

In most cases, the health, safety and environmental programs and practices are in place and are being maintained.

All facilities hold a COR which reflects a high level of management support for health and safety.

The Registered Processors efforts to monitor and assess worker exposure to lead and noise continue to be evaluated through the compliance assurance process, and the effectiveness of hazard controls are crucially reviewed during every PCA to encourage management to have appropriate programs in place to address the hazards.

The findings continue to indicate that there is more emphasis on health and safety programs than environmental programs at most of the Registered Processors facilities. This is not unforeseen given that the environmental risks associated with their operations are relatively





small if present at all. Most facilities take steps to minimize the quantities of waste directed to landfill.

Although Program materials continue to be stored outdoors at some facilities, Registered Processors continue to take steps to reduce the amount of outdoor storage, which decreases the potential for impacts to soil and groundwater. In addition, Registered Processors make an effort to process and ship materials out as soon as possible.

Certificates of Recycling or Destruction are issued either automatically or upon request.

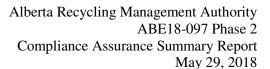
A number of deficiencies have been found with respect to compliance with occupational health and safety regulatory requirements and industry standards. There have been no findings of non-compliance with environmental regulatory requirements to date.

All Registered Processor facilities have a business license or occupancy permit issued by the municipality in which they operate. All Registered Processors have a WCB account in good standing.

With respect to compliance with the Program requirements, data-containing devices are destroyed on site (data-destruction) and are safeguarded on site before they are destroyed to ensure the protection of personal information and data.

Deficiencies identified during the PCAs are brought to the attention of Alberta Recycling and the respective Registered Processors. All identified deficiencies are discussed with the Registered Processors during an audit close out meeting and general timelines are agreed upon for resolving the deficiencies. A formal deficiency list in regard to the audit findings is provided to the Registered Processor following the PCA of their facility. Each Registered Processor is required to respond to the deficiency list within one week of receipt, and to address the deficiencies according to the established deadlines. Following the issuance of the audit report, the issues related to the deficiencies are followed up by the auditors through email and telephone communications, and if necessary by means of additional site visits, to ensure that the appropriate corrective actions are implemented. Registered Processors have typically been diligent in implementing corrective actions to address the deficiencies that are identified. Where the response in addressing an outstanding deficiency had been slow, Alberta Recycling has advised the Registered Processor that incentive payments will be withheld in the absence of prompt attention to the matter.

Registered Processors are required to receive approval from Alberta Recycling before sending materials to any new downstream processors. A preliminary assessment is conducted of any new downstream processors and, once eligible shipments of materials are made to these downstream processors, their operations may be additionally evaluated as part of the downstream processor review process. Alberta Recycling has denied the approval of certain downstream processors whose operations were not consistent with





Program policies and objectives; incentive payments are not made to registered processors for materials shipped to such facilities.

Apart from identifying the downstream processors, Program requirements also specify that the Registered Processors must have a process in place to ensure that the downstream processors meet certain specified criteria. All Registered Processors were found to have a process in place to periodically evaluate/assess both downstream processors and transporters, though the process was sometimes informal in nature.

Other types of downstream processor reviews went beyond evaluating whether the Registered Processor has the required process in place and to assess the downstream processors themselves, to determine whether the Program criteria are being met. Five downstream processor audits were conducted in 2017/2018 and there was evidence to suggest that one of the downstream processors failed to meet the specified criteria.

The findings of the remaining downstream processor audits indicated that, overall, the downstream processors safeguard the health and safety of employees working at the facility, in conformance to the Program requirements. Some minor deficiencies were identified during the audits and were resolved in a timely manner.

All of the downstream processors audited have a formal environmental management system in place and the audit findings indicated, overall, that materials are processed and recycled in an environmentally sound manner. Based on information provided by site representatives, any material that is not in a final recycled state leaving the facility is not being sent to non-OECD countries for disposal.

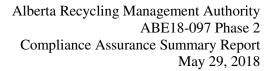
Based on the findings of the PCAs and the downstream processor audits and having considered the deficiencies identified and related corrective actions, all Registered Processors were in considerable conformance to the Program requirements that were in effect at the time of the 2017/2018 compliance assurance activities. In most cases, any deficiencies identified during the PCAs were addressed in a timely manner.

8.0 NEXT STEPS

To ensure that the audit criteria continue to be consistent with current Program requirements the audit protocol has been formally updated to capture any changes to the Program requirements in the 2018/2019 year.

Alberta Recycling will continue to commission independent, third-party audits of the Registered Processors on an annual basis. It is anticipated that PCAs of the seven existing Registered Processors will be conducted in 2018.

It is further anticipated that Alberta Recycling will commission additional downstream processor reviews (desktop studies, site visits and/or on-site audits) of some of the





downstream processors, and that further preliminary assessments will be conducted of any proposed new downstream processors.

Applicant evaluations and initial assessments will be carried out as required when new processor applications are received by Alberta Recycling.

Having considered to the purposes of the Program, and the overall Program requirements, all current Registered Processors have been found to be significantly in conformance to the terms and conditions of the Program.

Alberta Recycling will continue to require that Registered Processors address any deficiencies in a timely manner in order to ensure conformance to the Program requirements and to further the overall Program objectives.

This report was prepared by Alex Mercer and reviewed by Denise Castle.

We trust that this meets your requirements at present. If you have any questions, concerns or require additional information, please feel free to contact the undersigned.

Yours Truly,

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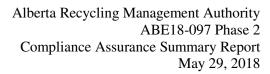


APPENDIX A COMPLIANCE ASSURANCE ACTIVITIES



Follow up communications occurred consistently between Registered Processors, JADA Solutions and Alberta Recycling until all identified deficiencies were resolved. Follow up communications also occurred as required between downstream processors, JADA Solutions and Alberta Recycling until April 27, 2018.

Processors									
		GEEP Alberta	Hi-Tech	CPE Plastics	eCycle	Technotrash	Recycle Logic	Shanked	
	Notification Letter	Sept 13, 2017	Apr 19, 2017	June 15, 2017	Aug 16, 2017	Aug 16, 2017	Sept 29, 2017	Oct 12, 2017	
ý	Audit date	Sept 21, 2017 (Edm) September 22, 2017 (Cal)	May 23, 2017	June 27, 2017	Aug 24 and 25, 2017	Aug 23, 2017	Oct 6, 2017	Oct 24, 2017	
Activity	Notification of deficiencies	September 27, 2018	May 26, 2017	June 28, 2017	Aug 29, 2017	Aug 29, 2017	N/A	N/A	
	Deficiencies resolved	Sept 28, 2017	July 20, 2017	Sept 1, 2017	Oct 13, 2017	Nov 13, 2017	N/A	N/A	
	Draft report submitted	Nov 15, 2017	July 19, 2017	Dec 7, 2017	Oct 4, 2017	Sept 23, 2017	Nov 28, 2017	Dec 4, 2017	
	Report finalized	Nov 20, 2017	July 31, 2017	Dec 18, 2017	Nov 6, 2017	Nov 13, 2017	Dec 7, 2017	Dec 7, 2017	





	Material(s) Accepted							
		Lithium Ion Batteries	Lead Acid Batteries	Various Commodities for Further Processing	Various Commodities for Further Processing	Flat Panel Display		
Activity	Initial notice of audit	Dec 4, 2017	Dec 4, 2017	Dec 4, 2017	Dec 4, 2017	Dec 4, 2017		
Act	Audit	Feb 22, 2018	Feb 8, 2018	Jan 30, 2018	Feb 7, 2018	Feb 21, 2018		
	Draft report	Feb 26, 2018	Feb 12, 2018	Feb 12, 2018	Feb 12, 2018	Feb 26, 2018		
	Final report	April 27, 2018	April 27, 2018	April 27, 2018	April 27, 2018	April 27, 2018		