

VCS PROJECT REVIEW REPORT

Project ID	929
Project Name	Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community
Project Proponent	Will Solutions, Inc.
Methodology	VM0018 “Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community, v1.0”
Sectoral Scope(s)	3. Energy demand 13. Waste handling and disposal
Validation/Verification Body (VVB)	Perry Johnson Registrar Carbon Emissions Services, Inc.
Registry	APX

Assessment Criteria	VCS Standard, v3.4; VCS Program Guide, v3.5; VCS Monitoring Report Template, v3.3; VCS Verification Report Template, v3.3; VM0018 “Energy Efficiency and Solid Waste Diversion Activities within a Sustainable Community, v1.0”
Date of First Issue	21 January 2015
Date of Final Issue	29 May 2015

Summary:

A formal review of the Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community project has been conducted by VCS in accordance with Section 7 of the *Registration and Issuance Process*. The review focuses upon VCS’ concerns with respect to two project activity instances. The VVB, in coordination with the project proponent, is hereby required to provide a response to the 3 assessment findings presented in Section 1. The 3 assessment findings must be addressed to the satisfaction of VCS. As per Section 7 of the *Registration and Issuance Process*, further issuance of VCUs from the project is temporarily suspended during this review process.

1 ASSESSMENT FINDINGS

Finding 1

Several new project activity instances (PAI) were added to project 929 and verified for the monitoring period ranging from 1 January 2010 to 31 October 2013. The verification report states that two of the new PAIs, RPM Beauceville and Recyc RPM St. Damien, have start dates of 1 January 2013 and 1 January 2010 respectively. However, Table 6 of the verification report states that only October 2013 was covered in the verification period for the Recyc RPM St. Damien site. Furthermore, Recyc RPM's origins date to 1989 and Recyc RPM St. Damien was registered in 2004 with the CSA EcoProject Registry.

As the eligibility criteria require all project activities to be implemented after 1 January 2010, please could the VVB clarify on what date project activities commenced at the RPM Beauceville and Recyc RPM St. Damien sites?

VVB Response:

The project activity is designed to include an increasingly number of PAIs over the course of its lifetime subject to each project activity instance meets the fundamental eligibility criteria which is specified in the approved methodology and Project Design Document. And one of the eligibility criteria is indeed that all project activities shall have to be implemented after 01 January 2010 which is the case for all project activities included in the first verification of the project activity undertaken by Perry Johnson Registrars Carbon Emission Services (PJRCS).

With respect to two specific project activities, namely, **RPM Beauceville** and **Recyc RPM St. Damien**, we would like to highlight that both sites were part of on-site verification visits as part of sampled sites for the first verification activity. In response to questions raised above, we would like to present following key aspects for your consideration:

RPM Beauceville Recycling

The project activity instance is a new facility on which implementation started on 01 January 2013 and the facility started its plastic recycling plastics operation in April 2013 as described in the monitoring report (Table 1 page 7) and verified in the verification report (pages 15-16) and cross-verified through supporting documents. Verification of implementation status and dates of its inclusion to the project activity was verified during the site visit of the facility by the verification team through the signed membership form by the subscriber for its inclusion to the project activity as the PAI. This was further confirmed and cross-verified by the verification team by interviewing the facility operators and the information relating to the implementation of the facility was deemed correct. No information and/or evidences came to our notice which might have indicated that the facility was in operation before the indicated start date as indicated above.

Hence, PJRCES is able to confirm that the facility meets the eligibility criteria of the project activity with respect to the requirement that all project activities to be implemented after 1 January 2010.

Recyc RPM St. Damien

As illustrated in the monitoring report and further confirmed and ascertained in the verification report that Recyc RPM St. Damien has been transferred from a project activity under another greenhouse gas scheme (CSA Carbon Program). However, it may be noted that the transfer of the facility was subject to meeting the eligibility criteria which was duly confirmed by the PPs and verified by the

PJRCES verification team.

Since 1989 the facility has been involved in recycling activities but the details and scope of its recycling activities remains unspecified. It was validated from publicly available information resources that in response to several policy measures introduced by local government of Quebec relating to waste sector, the company re-designed its business operations with particular focus on recycling of post-consumption plastic waste originating from municipal solid waste. This re-shaping of business operations allowed the facility owners to design and implement their business operations as a carbon reduction project and was submitted to CSA Carbon Program in 2003 and has been in operations since then.

The project was transferred to Will Solutions in 2010 as part of the Energy Efficiency and Solid Waste Diversion Activities within the Quebec Sustainable Community. Since the transfer became effective in 2010 January 2010 (confirmed from transfer deed), which qualifies the facility to meet the eligibility criteria of project activities to be implemented after 1 January 2010. It is noted that although the facility has been in operations since a long time but becoming part of this project activity required the facility operators to comply with specific operational and monitoring requirements which were duly undertaken and verified during the verification process. Since these operational and monitoring requirements would not have been undertaken in the absence of facility not becoming the part of the project activity which determines its implementation status from the date of the transfer.

It is also highlighted that the facility owners of St. Damien opted to transfer the project activity due to both commercial attractiveness as well as global branding of VCS.

VCS Response:

The VVB has stated that the activity instances at the RPM Beauceville site were implemented on 1 January 2013, and the facility started operations in April 2013. Table 6 of the verification report states that the period covered in the 2013 verification for the RMP Beauceville site is January 2013 to October 2013.

Section 3.4.10 of the VCS Standard defines the start date of a project activity instance as the date upon which the project activity instance began reducing or removing GHG emissions. Please could the VVB clarify how the period between January 2013 and April 2013 was covered in the verification if the operations at the RMP Beauceville site were not initiated until April 2013?

The VVB stated that the operations taking place at the RPM St. Damien site were based upon several policy measures introduced by the local government of Quebec. Section 4.6.3 of the *VCS Standard* states that the project must not be mandated by any law, statute or other regulatory framework.

The VVB is requested to provide more detail regarding the policy measures that were introduced by the government and to clarify how the project meets the regulatory surplus requirements outlined in Section 4.6.3 of the *VCS Standard*.

It is VCS' interpretation that the term "implemented" as used in the second eligibility criterion listed on p.10 of the project description refers to the date on which the project activity instance was included in the VCS project. Additionally, the VVB stated that the operations that took place at the RPM St. Damien site began in 2003 in accordance with the CSA Carbon Program. Section 3.11.10 of the *VCS Standard* states that projects may be registered under both the VCS Program and another GHG program so long as the project start date is not prior to 19 November 2007.

If the VCS interpretation in the above paragraph is correct and the eligibility criterion does not refer to the start date of the project activity instance, the VVB is requested to please clarify how it was

assessed that the RPM St. Damien site was determined to be eligible for participation in the Project given that the methodology complies with the principles of the *VCS Standard*.

VVB Response 2:

With regard to the first question relating to the Beuceville, we would like to further clarify that the project activity instance is a new facility and its implementation which included start of plastic recycling activities started from the indicated date of implementation i.e 1 January 2013. In theory as well as in practical compliance with the requirements of the VCS standard on the start date of the project activities, the facility became eligible for emissions reductions from its date of implementation. However, as in the case of any new industrial facility is subject to an initial trial run to test the technical and functional reliability of the system which was also the case in case of Beuceville facility. The facility was implemented in January 2013 and started its operations from that point onwards which makes it eligible for emissions reductions but since the period from January to April 2013 was under trial phase with periods of frequent stoppages, hence, April 2013 is considered as the date of start of full scale operations. This approach has been considered as conservative since it results into lower quantity of emissions reductions.

With respect to the St. Damien site, we would like to clarify that it is indeed true that the facility went through the operational modification in consideration to the policy measures introduced by the local government under its "Plan of Action" ("Plan d'action québécois sur la gestion des matières résiduelles 1998-2008") for the waste sector. This plan of action was confirmed to be providing policy directions rather being an instructive policy action without any mandatory and/or obligation to the Quebec's municipality to implement solutions to divert municipal solid waste from landfills.

It may also be noted that although under the Plan of Action, Recyc-Quebec a local governmental agency, has the mandate to promote and develop the reduction, the reuse, the recuperation and the recycling of solid wastes and their valorisation in view of the resources conservation. And the local government tried to stimulate the plastic's recycling activities inside the Quebec territory. However, it turned out to be extremely difficult to do so, because the economic instability at worldwide level created a direct and unstable effect on the price of the plastic recycled and jeopardized the viability of recycling plants. Hence, the Plan of Action never evolved towards a concrete policy action with mandatory and obligatory requirements for the recycling facilities in the Quebec territory. Hence, we firmly believe that the activity is in compliance with the requirements of the VCS standard with respect to not be mandated by any law, statute or other regulatory framework.

With regard to second question relating to the St. Damien site the interpretation for implemented to be considered as when the facility became part of the VCS project is indeed correct. The transfer became effective in January 2010 which is stipulated as the date of implementation. It is also correct that the facility went through the significant technical and operational changes as part of becoming a GHG program under CSA but as it has also been indicated and verified that although the facility has been in operations since a long time but becoming part of this project activity required the facility operators to comply with specific operational and monitoring requirements which were duly undertaken and verified during the verification process. Since these operational and monitoring requirements would not have been undertaken in the absence of facility not becoming the part of the VCS project activity which determines its implementation status from the date of the transfer.

VCS Response 2:

The VVB's response provides clarification regarding the start date of the RPM Beauceville activity instance. The VVB response is sufficient and the start date of this activity instance is found to be in compliance with the eligibility criteria.

VCS has received a revised verification report which discusses the policy measures as they relate to the St. Damien activity instance. This assessment satisfies the requirement of Section 4.6.3 of the *VCS Standard*.

The revised verification report also demonstrates that the St. Damien activity instance meets the eligibility requirements for start date and that the prior inclusion of the activity instance in the CSA Carbon Program does not preclude the St. Damien facility from participating in the VCS project.

The VVB response and the revised verification report are sufficient to close this finding. No further action is required.

Finding 2

Section 3.4.1 of the *VCS Standard* states that new project activity instances that meet the established criteria may be added to the project subsequent to project validation. Additionally, 'project activity instance' is defined in the *Program Definitions* as a particular set of implemented technologies and/or measures that constitute the minimum unit of activity necessary to comply with the criteria and procedures applicable to the project activity under the methodology applied to the project.

Neither the monitoring report nor the verification report describe the activity instances that took place at the RPM Beauceville and Recyc RPM St. Damien locations and how the activities meet the applicability criteria outlined in the methodology.

The VVB is requested to provide more detail regarding the project activities that took place at the two sites as the current level of detail provided in the project documentation does not allow readers to determine what activity is taking place.

Additionally, the VVB is requested to please clarify how it was assessed that the RPM Beauceville and Recyc RPM St. Damien sites were designated as eligible according to the applicability conditions and eligibility criteria.

VVB Response:

As illustrated in the monitoring report as well as verification report that both facilities are plastic recycling facilities. In line with the Epa Warm Model, Recyc RPM has set-up the necessary technological processes to recycle plastics in their St Damien facility. The technological processes are as follows:

- Electronic and physical sorting of plastic by types: processes are based on plastic properties, such as differentiated density by types and laser light reflexion and diffraction,

- Contamination elimination: processes are based on electromagnetic properties of contaminants and chemical dissolvent to remove labels and inks.
- Plastic reprocessing: processes encompass hot filtering, extrusion, granulation.

In addition the Beauceville premisses has maximized processes efficiency and energy recovery of all accessories processes, such sludge treatment, plastic flakes drying, intrants re-usage and/or recycling, such kraft box.

Technological processes of instances at both sites were verified from project supporting documentation and further verified at the site during the site visit. Details of these processes has been further elaborated in the verification report.

VCS Response:

The VVB stated that the project activities taking place at both the RPM Beauceville and RPM St. Damien sites are related to plastic recycling.

According to p.18 of VM0018, the methodology is applicable to ECMs where the project activity is the construction of new facilities, the retrofit of existing facilities, or process/management changes of existing facilities that result in a reduction of energy use per unit of productivity. The ECMs must occur in conjunction with the following:

- Building envelope modifications
- Heating, ventilation and air conditioning (HVAC)
- Heat generation (including industrial thermal energy systems)
- Chilling/cooling systems
- Lighting and lighting control
- Building mechanical infrastructure
- Appliances and industrial processes (including heating and cooling requirements and process modification)
- Electric motors
- Equipment optimization

The project documents state that the activities taking place at the RPM Beauceville and RPM St. Damien sites are included in the energy efficiency portion of the project description and methodology.

The VVB is requested to provide further detail regarding the project activities that were taking place at the two sites, and under which applicability criteria outlined above the activities can be categorized. This detail shall be included in the updated monitoring and verification reports.

VVB Response 2:

Both facilities are plastic recycling facilities and as per the measures stipulated in the applied baseline and monitoring methodology VM0018 facilities fall under the process/management changes of existing facilities that result in reduction of energy use per unit of productivity.

Updates and modifications in the following technology/measures took place in these facilities :

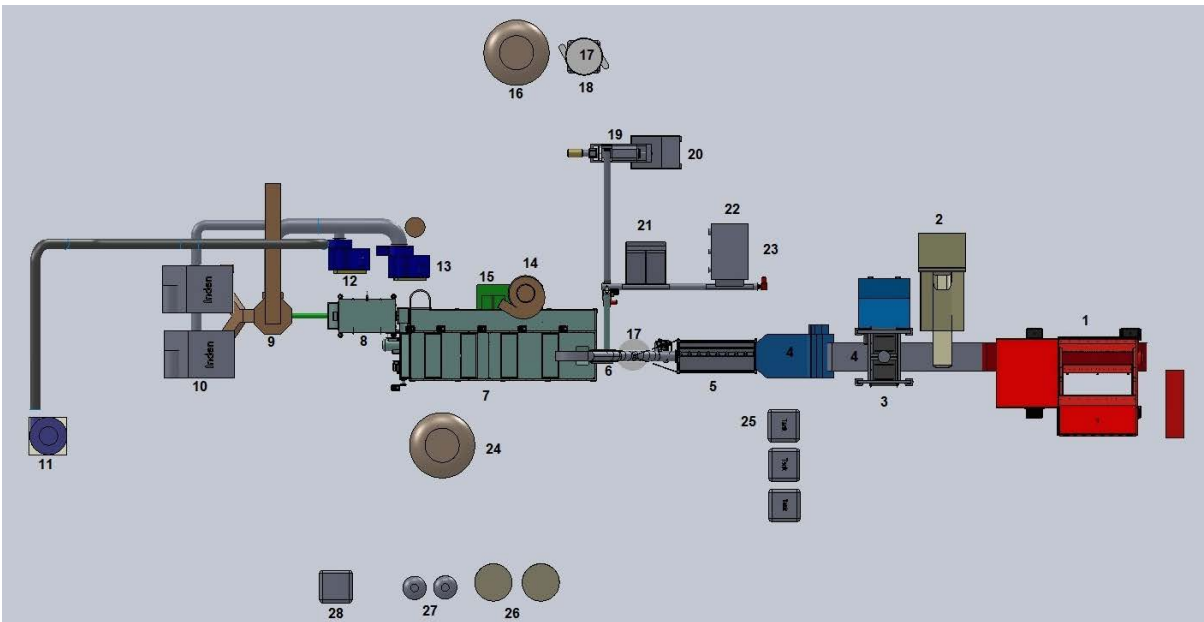
- Heating, ventilation and air conditioning (HVAC)
- Heat generation (including industrial thermal energy systems)

- Appliances and industrial processes (including heating and cooling requirements and process modification)
- Equipment optimization

The overall processing of Recyc RPM included a number of technologies laid out in the here below figures, namely :

- Conveyor belts
- Electromagnetic foreign parts elimination
- Grease separator
- Washing screw and basin
- Dryer
- Hydrocyclone and vibrating screen
- Sludge processing.

A graphical representation of the technological process is presented here for illustration.



The implementation of these new technologies resulted in a decrease of energy required to produce the recycled plastics pellets to be re-used as per EPA WORM methodology. Hence it clearly shows that the technological measure employed in both facilities is fully compliant with the listed measures and technologies in the applied methodology.

VCS Response 2:

VCS has received a revised verification report which discusses the energy efficiency activities that took place at the RPM Beauceville and St. Damien sites. An inconsistency remains in the revised report however, as it continues to state that “*total reductions are based on the difference of emission factors between processing virgin resin versus recycled plastic*”. This inconsistency also remains in the monitored parameters section of the report making it unclear whether the project activity is implementation of energy efficiency measures or recycling of plastic.

The *VCS Monitoring Report Template* requires the project proponent to complete the table provided for all parameters monitored during the crediting period including the measured value for each data/parameter. Furthermore, Section 4.2 of the *Monitoring Report Template* requires the project proponent to “*quantify emissions and/or removals providing sufficient information to allow the reader to reproduce the calculation*”.

The monitoring report includes the parameter tables, however the measured values for each data/parameter are not provided within the table or in Section 4 of the report.

Section 4.2 of the *VCS Verification Report Template* requires the VVB to identify the data and parameters used to calculate the GHG emission reductions and removals and to describe the steps taken to assess the accuracy of GHG emission reductions including the consistent use of the data and parameters.

The verification report states that the VVB concluded that the monitoring was carried out in accordance with the monitoring plan and all parameters were monitored and determined as per the monitoring plan. The report however, also states that the “*primary parameter monitored and reported is the quantity of plastic recycled*”, and the monitored parameters table shows that the quantity of waste was monitored at the RPM Beauceville and St. Damien sites as opposed to the electricity or fuel consumed. One can reasonably expect electricity use or fuel consumption to be monitored for the quantification of emission reductions resulting from the implementation of energy efficiency measures.

The VVB is requested to further clarify where the emission reductions occurred and whether electricity or fuel consumption was monitored for the two sites as outlined in the methodology, project description and monitoring report. The VVB is also requested to clarify how it was assessed that the two sites met the monitoring requirements and whether the emission reductions claimed for the activities taking place at these two sites were accurate if the values for these parameters were not included in the monitoring report.

VVB Response 3:

VCS may wish to note that the technical processes involved in the recycling of the plastic are as follows:

- Electronic and physical sorting of plastic by types: processes are based on plastic properties, such as differentiated density by types and laser light reflexion and diffraction,
- Contamination elimination: processes are based on electromagnetic properties of contaminants and chemical dissolvent to remove labels and inks.

- Plastic reprocessing: processes encompass hot filtering, extrusion, granulation.

As per the applied approved methodology VM0018 is applicable to energy efficiency measures where 'or process/management changes of existing facilities that result in a reduction of energy use per unit of productivity'.

This PAI is based on Energy Efficiency on Recycling Activities. The facility has maximized processes efficiency and energy recovery of all accessories processes, such sludge treatment, plastic flakes drying, intrants re-usage and/or recycling, such kraft box.

Emission reductions are based on the difference of emission factors between processing virgin resin versus recycled plastic. Energy savings within the recycling activities are based on the actual quantity of plastic material recycled calculated through the weight of the plastic material at the recycling facility. For the calculation of associated emission reductions for differentiate types of plastic the combined emission factors for different plastics recycled (or diverted from landfills) is based on values provided by EPA.

Further details are provided in the revised verification report and also appendix IV which provides the details of the parameters and values of the emission factors, description of sources and details of the measurements.

VCS Response 3:

The VVB's response does not address the question of what the energy efficiency activities were and how these were applicable under the methodology. The VVB refers to the plastic recycling process of the RPM Beauceville and St. Damien facilities; however these are standard processes which do not themselves generate emission reductions.

However, additional information provided by the project proponent and the VVB during conference calls clarified that the emission reductions from the energy efficiency measures implemented actually occurred within the plastic manufacturing process as opposed to the plastic recycling process. Changes were made to the plastic manufacturing process of local facilities to incorporate recycled plastics as opposed to virgin materials. The recycled plastic produced at the RPM Beauceville and St. Damien sites was used as the input material in the plastic manufacturing process at the manufacturing facility. The emission reductions achieved by these measures were therefore calculated based on the difference in emission factors between processing the equivalent amount of virgin resin versus recycled plastic in the production of plastic materials. This justifies the measurement of the quantity of plastic recycled to determine emission reductions that resulted from the energy efficiency measures.

The project proponent and VVB also confirmed that contracts exist for the use of all recycled plastic included in the project, and that all project activity instances as well as the plastic manufacturing facilities were located within the province of Quebec. Furthermore, the project proponent has the right to all emission reductions achieved at the manufacturing plant per the contract mentioned above. Upon review of this additional information it was determined that the project activity instances are in compliance with the applicability conditions and eligibility criteria of the methodology and project description. Specifically, the activity instances are deemed applicable under the energy efficiency portion of VM0018 Section 4, such that the activities qualify as 'process/management changes of

existing facilities that result in a reduction of energy use per unit of productivity’ occurring in conjunction with ‘Appliances and industrial processes (including heating and cooling requirements and process modification)’.

The additional information provided by the project proponent and VVB is sufficient to close this finding.

Finding 3

The monitoring report on the VCS database is version 2.0 with a report ID of 20100101-20131031, dated 3 February 2014. The verification report refers to version 9 of the monitoring report dated 2 January 2014.

The VVB is requested to please clarify which version of the monitoring report was used to conduct the project’s verification.

VVB Response:

Inconsistency in the version number of reports is admitted to be an oversight which will be corrected and re-submitted for the consideration of VCS.

VCS Response:

The VVB has indicated that the inconsistency in version number of the monitoring and verification reports will be addressed when the reports are updated.

VCS will assess such upon receiving the updated documents.

VVB Response 2:

The inconsistency in the version and date of the monitoring report is found out due to a typographical error which has been rectified now. The final version of the monitoring report uploaded in the VCS database (version 2.0, dated 03 February 2014) is the correct version. The verification report has been duly corrected.

VCS Response 2:

The verification report has been updated to accurately reference the applicable monitoring report.

The VVB response is sufficient to close this finding. No further action is required.

2 ASSESSMENT CONCLUSION

On 18 November 2014, VCS received a stakeholder comment regarding the additionality and eligibility of VCS Project 929. After reviewing the comment received VCS issued this project review report on 21 January 2015.

On 16 February 2015, Perry Johnson Registrar Carbon Emissions Services (PJRCES) provided VCS with an initial round of responses, labeled as “VVB Response” in this report.

On 11 March 2015, VCS requested further clarification regarding the three findings as outlined in the sections labeled “VCS Response”.

On 31 March 2015, PJRCES provided VCS with the second round of responses labeled “VVB Response 2” as well as an updated verification report. Upon receipt of the VVB’s second response, Finding 1 was satisfied by demonstrating that the RPM Beauceville and St. Damien activity instances were in compliance with the eligibility criteria. The revised verification report also demonstrates that the prior inclusion in the CSA Carbon Program did not preclude the St. Damien facility from participating in the VCS project. Finding 3 was satisfied with a correction in the verification report to reference the correct version of the monitoring report.

On 30 April 2015, VCS closed Finding 1 and Finding 3 and issued a third response for Finding 2 labelled “VCS Response 2”.

On 21 May 2015, VCS received the final response from PJRCES regarding Finding 2, “VVB Response 3”, and the final revised verification report. Upon review of the final verification report and with consideration of the additional information provided by PJRCES, Finding 3 has been closed. The verification report outlines the energy efficiency measures that took place in conjunction with the RPM Beauceville and St. Damien sites, which included process changes at the plastic manufacturing facilities to incorporate recycled plastic as opposed to virgin materials that resulted in a reduction of energy use per unit of productivity.

The evidence presented in our discussions as well as in the revised verification report adequately addressed the items raised in the three findings. All findings were closed as of 29 May 2015. No further action is required.