


AMENDED CERTIFICATE OF APPROVAL
AIR

NUMBER 0678-7S9RUX

Issue Date: July 14, 2009

Biedermann Packaging Inc.
 36 Head St
 Dundas, Ontario
 L9H 3H3

Site Location: Biedermann Packaging
 36 Head St Dundas
 Hamilton City,
 L9H 3H3

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

One (1) dust collector to control particulate emissions from a pesticide/fertilizer formulation process, equipped with pulse jet cleaning mechanism and polyester needlefelt singed filters having a filter area of 228.4 square metres, exhausting to the atmosphere at a maximum volumetric flow rate of 6.96 cubic metres per second through a stack having an exit diameter of 0.66 metre, extending 5.8 metres above grade;

all in accordance with the application for a Certificate of Approval (Air) originally issued to Wilson Laboratories Inc. with supporting documentation provided by Suzanne Beattie and dated September 28, 1998.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

1. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility.
2. "Acoustic Assessment Report" means a report, prepared in accordance with Publication NPC-233 and the Acoustic Assessment Report Procedure that documents all sources of noise emissions and Noise Control Measures present at the Facility.
3. "Acoustic Assessment Report Procedure" means the Ministry procedure attached to this Certificate as Schedule "A".
4. "Act" means the Environmental Protection Act.
5. "Certificate" means this Certificate of Approval, issued in accordance with Section 9 of the Act.
6. "Company" means Biedermann Packaging Inc.
7. "Director" means any person appointed in writing by the Minister pursuant to section 5 of the Act as a Director for the purposes of section 9 of the Act.
8. "District Manager" means the District Manager, Hamilton District Office, West Central Region of the Ministry.
9. "Equipment" means the equipment or processes described in the Company's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate.
10. "Facility" means the entire operation located on the property where the Equipment is located.

11. "Manual" means a document or a set of documents that provide written instructions to staff of the Company.
12. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf.
13. "Noise Abatement Action Plan" means a noise abatement program developed by the Company to achieve compliance with the sound level limits set in Publication NPC-205.
14. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers.
15. "Publication NPC-205" means the Ministry Publication NPC-205, Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban), October 1995 as amended.
16. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

OPERATION AND MAINTENANCE

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

(1) prepare, not later than three (3) months after the date of this Certificate, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

- (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
- (b) emergency procedures,
- (c) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
- (d) all appropriate measures to minimize noise and odorous emissions from all potential sources;
- (e) the frequency of inspection and replacement of the filter material in the Equipment;

(2) implement the recommendations of the Manual.

RECORD RETENTION

2. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Certificate, and make these records available for review by staff of the Ministry upon request. The Company shall retain:

(1) all records on the maintenance, repair and inspection of the Equipment; and

(2) all records of any environmental complaints; including:

- (a) a description, time and date of each incident to which the complaint relates;
- (b) wind direction at the time of the incident to which the complaint relates; and
- (c) a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

NOTIFICATION OF COMPLAINTS

3. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

- (1) a description of the nature of the complaint; and
- (2) the time and date of the incident to which the complaint relates.

NOISE

4. The Company shall ensure that noise emissions from the Facility comply with the limits in Ministry Publication NPC-205.

5. ACOUSTIC ASSESSMENT REPORT

5.1 The Company shall submit an Acoustic Assessment Report for the Facility, prepared by an Acoustical Consultant, to the District Manager and the Director not later than three (3) months after the date on this Certificate.

5.2 In the event that the findings of the Acoustic Assessment Report demonstrate that the Facility is not in compliance with the Performance Limits, the Acoustic Assessment Report must incorporate a Noise Abatement Action Plan that includes but is not limited to the following:

- (a) required Noise Control Measures to reduce the noise emissions from the Facility to comply with the sound level limits set in Publication NPC-205;
- (b) a timetable for implementation of the Noise Control Measures, including the identification of specific dates for achieving compliance with specific milestones; and
- (c) a timetable for submitting further assessments to demonstrate compliance with the applicable sound level limits set in MOE noise guidelines.

5.3 The Director may not accept the results of any Acoustic Assessment Report if the requirements of Publication NPC-233 or the Acoustic Assessment Report Procedure were not followed.

5.4 If the Director does not accept the results of an Acoustic Assessment Report, the Director may, upon written notice, require the Company to repeat the Acoustic Assessment Report within the time frame specified in the notice.

SCHEDULE "A"

Supporting Information for the Preparation of an Acoustic Assessment Report

Prepared by the Air and Noise Unit, Environmental Assessment and Approvals Branch
November 2003

Ontario's Environmental Protection Act (EPA) defines a contaminant to include sound or vibration. In order to obtain an approval under Section 9 of the EPA, applicants are, as a minimum, required to assess and document the impacts of the noise¹ emissions from their facility on Point(s) of Reception in comparison to specific sound level limits contained in published ministry Noise Pollution Control (NPC) guidance documents (see Section 1). Depending on the type of equipment and nature of the activities taking place at a facility, a detailed Acoustic Assessment Report² is not required if the facility is located further from the nearest Point of Reception than the minimum separation distance, as outlined in the "Guide to Applying for Approval(Air): Noise and Vibration", April 1998 as amended. In all other cases a detailed Acoustic Assessment Report must be submitted.

The Acoustic Assessment Report demonstrates compliance with the sound level limits. Central to these reports is the preparation of Summary Tables to present the results of the report in a tabular manner and to confirm continued

compliance with the sound level limits (Performance Limits).

This Document is designed to assist the individual who is responsible for preparing an Acoustic Assessment Report and the Summary Tables included as part of the Report. Reports prepared and documented in accordance with the format described below may be considered in a format acceptable to the Director in order to document compliance with the sound level limits. Reports that do not follow the format described may not be acceptable to the Director and proponents wishing to obtain a CofA will be directed to resubmit the supporting information accompanying the application.

1. References

- NPC-205 - Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)
 - NPC-232 - Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)
 - NPC-207 - Impulse Vibration in Residential Buildings (draft)
 - NPC-206 - Sound Levels Due to Road Traffic
 - NPC-233 - Information to be Submitted for Approval of Stationary Sources of Sound
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1 For the purposes of this document the term noise will also mean vibration or a combination of both as appropriate.

2 When references are made within this document to Acoustic Assessment Reports and other requirements relating to sources of noise emissions, it should be noted that there are similar requirements for Vibration Assessment Reports and summary tables for facilities with significant sources of vibration emissions.

2. Documentation Requirements

The Acoustic Assessment Report must include sufficient information and analysis to demonstrate the facility's compliance with the applicable noise sound level limit. To ensure consistency in identifying sources of air and/or noise emissions the Acoustic Assessment Report should be linked with the Emission Summary and Dispersion Modelling (ESDM) Report prepared in accordance with the ESDM Procedure Document dated June 1998 and submitted with the application for Certificate of Approval.

The suggested format and content for the report is provided in the following section. The person preparing a report must be able to defend the accuracy of the data presented in the report and tables.

3. Acoustic Assessment Reports

3.1 Introduction

The purpose of the Introduction is to provide an overview of the facility, list the objectives of the report and identify its relationship to the Certificate of Approval application. Specific information in the introduction should include the site location, facility overview and the type and number of noise sources at the facility. The introduction should also provide detailed information on the environmental noise climate surrounding the facility and should include:

- An up-to-date land use zoning designation plan of the surrounding area, complete with legend and scale. The zoning plan will be required within a radius of either 500 metres or 1,000 metres, depending on the type of equipment and nature of the activities taking place at a facility. (See "Guide to Applying for Approval (Air): Noise and Vibration", dated April 1998 for more information and the required separation distances).
- Scaled area location plan, indicating the topography and nature of the neighbourhood surrounding the facility, including the location of adjacent buildings and structures, and the nearest Point(s) of Reception. As with the zoning plan, the area location plan will be required within a radius of either 500 metres or 1,000 metres, depending on the type of equipment and nature of the activities taking place at a facility.
- The location of the nearest Point(s) of Reception that may be impacted by the facility must be clearly shown on the scaled area location plan. Point(s) of Reception include any of the following existing or zoned for future use premises:

- permanent, seasonal or rental residences;
- hotels/motels;
- nursing/retirement homes;
- hospitals;
- campgrounds; or
- noise sensitive buildings such as schools, day care facilities and places of worship

3.2 Facility Description

The purpose of the Facility Description is to provide a detailed description of the facility, processes and types of equipment that may produce noise emissions. The information listed in the ESDM Procedure Document should be included or referenced, along with the following information:

- Operating hours of the equipment/facility (including start time and stop time) and sequence of operation of multiple and/or intermittent sources.

- Relevant architectural and mechanical drawings (scaled plans, elevations and sections) of the equipment/facility. Drawings should show:

- size and location of all exterior openings in the building(s) housing the equipment/facility;
- details of the construction materials forming the exterior envelope of the building(s) (e.g. concrete block, brick, etc.);
- details of the construction materials forming the interior surfaces of the building(s) (e.g. dry wall, concrete, etc.); and
- orientation of, and distance from, all exterior openings with respect to the nearest Point(s) of Reception.

3.3 Noise Source Summary

The Noise Source Summary should identify all noise sources at the facility and provide all required technical information to predict the worst case noise impacts from the facility. Each source must be assigned a unique identifier and be clearly located on the site drawings included in the Facility Description. Where possible, the Noise Source Summary should use the same identification system used in the ESDM Report.

The use of source description sheets summarizing the following information for each source is encouraged. Sufficient information must be provided for each source to calculate the worst case noise impact from the facility. The following information should be provided as required:

- Manufacturer's make and model number, power rating, flow rate or other specifications to uniquely identify the source and calculate the sound level emissions;
- Time varying characteristics of generated sound (steady or intermittent);
- Tonal characteristics;
- Impulsive characteristics;
- Directivity pattern of the source;
- Measurement techniques and equipment used for evaluation of source emission;
- Octave or 1/3 octave sound power levels for the sources where available;
- Octave or 1/3 octave sound pressure levels generated by the sources including measurement conditions, procedure and location of measurement points; or
- noise/vibration control equipment or measures designed to reduce the noise/vibration emissions.

Detailed information may not be required for noise sources that are insignificant in comparison to the overall facility noise levels. However, noise sources that are considered insignificant should be listed as such in an appendix to the report.

Selected details relating to sources of noise emissions must be documented in the form of a Noise Source Summary Table. An example of a completed Noise Source Summary Table is included as Table A1. The following information should be

included in the Noise Source Summary Table:

Source Identifier A unique identifier for each source. Wherever possible this identifier should be the same as used in the ESDM Report.

Source Description A brief description of the source.

Sound Power Level A measurement in decibels of the acoustical power radiated by a given source with respect to the international reference of 10^{-12} Watts.

Source Location An indication of where the source is located, either inside a building (I) or outside (O).

Sound Characteristics Acoustical characteristics of the source that affect the measurements, including Tonal, Impulsive, or Quasi-Steady Impulsive.

Noise Control Measures An indication of the type (if any) of Noise Control Measures that are applied to the noise source or are used to control the noise emissions from the source. The following codes should be used:

S: silencer, acoustic louvre, muffler

A: acoustic lining, plenum

B: barrier, berm, screening

L: lagging

E: acoustic enclosure

O: other

U: uncontrolled

3.4 Point of Reception Summary

The Point of Reception Summary should identify all required Point(s) of Reception in the vicinity of the facility. At a minimum, the closest Point(s) of Reception in each cardinal direction should be identified. For more complex facilities, additional Point(s) of Reception may be required to determine the critical Point(s) of Reception. Each Point of Reception must be assigned a unique identifier and located on the scaled area location plan included in the Introduction.

Sufficient information must be provided to assess the impacts of each source identified in the Source Summary Section on each Point of Reception. The following information should be provided as required:

- One Hour Equivalent Sound Level (L_{eq}) of the source. For multiple sources or sources generating intermittent or time-varying sound, the hourly L_{eq} over a minimum period of 24 hours or for the operating cycle of the source, whichever is shorter, should be provided;
- Logarithmic Mean Impulse Sound Level (LLM) of the source, if applicable;
- Prevailing meteorological conditions such as wind direction and speed, percent relative humidity, temperature;
- For a location in a Class 3 Area, the existing One Hour Ninetieth Percentile Sound Level (L_{90}) of the background sound level at Point(s) of Reception, obtained through monitoring over a minimum period of 48 hours. The monitoring should be conducted during times when the background sound level is at its lowest level. The lowest hourly L_{90} value should be selected to represent the background sound level;
- For all Areas, the existing One Hour Equivalent Sound Level (L_{eq}) of the background sound level obtained either by prediction or through monitoring over a minimum period of 48 hours. The monitoring should be conducted during times when the background sound level is at its lowest level. The lowest hourly L_{eq} value should be selected to represent the background sound level; or
- Sound level using other specialized descriptors.

The relationship between the sources identified in the Noise Source Summary section and the Point of Reception Summary section should be documented in the form of a Point of Reception Noise Impact Table. An example Point of Reception Noise Impact Table is included as Table A2.

The following information should be included in the Point of Reception Noise Impact Table:

Source ID The unique identifier used in the Source Summary Section.

Distance to The distance in metres from each individual source to the Point of Reception Point of Reception.

Sound Level at The predicted or measured sound level (L_{eq} or L_{LM}) Point of Reception identified as units of dBA or dBAI at the Point of Reception resulting from the individual source.

3.5 Mitigation Measures Summary

The Mitigation Measures Summary should identify the noise mitigation measures that are used to control the noise emissions from the facility. This section identifies common mitigation measures such as berms or enclosures that are used to control more than one source. Individual mitigation measures may be detailed in the Source Summary Section.

The following information is should be provided as required when noise mitigation measures are used:

- Where sound sources are silenced, enclosed or shielded by barriers, indicate the location, dimensions, structural details, materials used and the specification of abatement equipment and materials, such as transmission loss, insertion loss, noise reduction or barrier attenuation;
- If the devices are standard catalogue items, indicate the type, manufacturer's make and model number and spectral acoustic performance specification data, such as insertion loss, transmission loss, absorption coefficient values, noise reduction; or
- If alternative measures for noise abatement are proposed, provide a full description of the alternatives, administrative steps, changes in operational procedure or structural alterations.

3.6 Assessment Criteria (Performance Limits)

The Assessment Criteria section should indicate the applicable Performance Limit at each Point of Reception and the method used to determine that limit. The noise assessment process relates to the worst-case noise impact of the facility at Points of Reception. This means that the applicable Performance Limit at a Point of Reception is determined by identifying the time when the sound level produced by the source is at a maximum in relation to the background sound level.

The resulting Performance Limit at the Point of Reception is then based on the background sound level in accordance with Publications NPC-205 or NPC-232 and is the greater of either:

- the sound level limit based on the minimum background sound level that occurs or is likely to occur during operation of the source under assessment; or
- the exclusionary limit, as indicated in Table 205-1 for urban areas and Table 232-1 for rural areas.

Depending on the characteristics of the noise sources and the location of Point(s) of Reception, the Performance Limit may be expressed in terms of:

- L_{eq} - One Hour Equivalent Sound Level;
- L_{LM} - Logarithmic Mean Impulse Sound Level; or
- L_{90} - One Hour Ninetieth Percentile Sound Level.

The Performance Limit may be expressed in units of dBA or dBAI.

3.7 Impact Assessment

The Impact Assessment section should describe the method used to calculate the noise levels at the individual Points of

Reception³ and compare them to the applicable assessment criteria for the individual Point of Reception Performance Limits. The section should also outline the results of pre- and post-abatement assessment at Point(s) of Reception.

³ Large manufacturing and/or process plants or industrial complexes where a multitude of sources exist may require a more detailed analysis of the noise impact. The impact reports should include sound level mapping in addition to the information specified above. The sound level mapping should include the existing level of road traffic in the vicinity of the proposed installation.

The noise impact assessment must also be presented in an Acoustic Assessment Summary Table, summarizing the results of the Acoustic Assessment Report and demonstrating compliance with the Performance Limits for the Facility regarding noise emissions.

An example Acoustic Assessment Summary Table is included as Table A3. The following information must be included in the Acoustic Assessment Summary Table:

Point of Reception A unique identifier for each receptor used in the Point of Identifier Reception Summary section.

Point of Reception A brief description of the Point of Reception to assist in the Description identification of the Point of Reception on the table.

Sound Level at The predicted or measured sound level at the Point of Point of Reception Reception, in terms of L_{eq} or L_{LM} and reported in units of dBA or dBAI.

Verified by Indication whether or not the reported Sound Level of Point Acoustic Audit of Reception has been verified by an Acoustic Audit.

Performance Limit The prescribed Performance Limit required by the CofA, in terms of L_{eq} , L_{90} or L_{LM} and reported in units of dBA or dBAI.

Compliance with Indication that the predicted sound level at the Point of Performance Limit Reception is below the Performance Limit. The response should be Yes. No is not an acceptable response.

3.8 Conclusions and Recommendations

The Conclusions and Recommendations section should provide a written statement of compliance with the Performance Limits, signed by the qualified professional that completed the assessment. This section should also include an overview of the effects of the control measures employed at the facility and a description of verification activities conducted at the site.

3.9 Supporting Information

All supporting information necessary to support the conclusions of the report, but not specifically referenced as required in the above sections, should be referenced and attached as appendices to the report. Supporting information could include any information used to assess the impact of noise sources on Point(s) of Reception, such as details of measurements and calculations, specifications, plans, engineering drawings, etc.

Acoustic Assessment Summary Tables

Table A1
Noise Source Summary Table

CONTENT COPY OF ORIGINAL

Source ID ¹	Source Description	Sound Power Level (dBA)	Source Location ²	Sound Characteristics ³	Noise Control Measures ⁴
1	Diesel Generator Exhaust Stack	128	O	S	S
2	Diesel Generator Casing	111	I	S	S,A
3	Compressor	105	O	S	E
4	Exhaust Fan	101	O	S,T	U

Notes:

1. Wherever possible, the Source ID must be identical with that used in the ESDM report.

2. Source Location:

O - located/installed outside the building, including on the roof

I - located/installed inside the building

3. Sound Characteristics:

S: Steady

Q: Quasi Steady Impulsive

I: Impulsive

B: Buzzing

T: Tonal

C: Cyclic

4. Noise Control Measures

S: silencer, acoustic louvre, muffler

A: acoustic lining, plenum

B: barrier, berm, screening

L: lagging

E: acoustic enclosure

O: other

U: uncontrolled

Table A2
Point of Reception Noise Impact Table
 (add columns or tables to address additional Points of Receptions)

Source ID ¹	Point of Reception 1		Point of Reception 2		Point of Reception 3		Point of Reception 4	
	Distance to POR1 (metre)	Sound Level at POR1 ² (L _{eq})	Distance to POR2 (metre)	Sound Level at POR2 ² (L _{eq})	Distance to POR3 (metre)	Sound Level at POR3 ² (L _{eq})	Distance to POR4 (metre)	Sound Level at POR4 ² (L _{eq})
1	100	41 dBA	110	40 dBA	180	36 dBA	90	42 dBA
2	95	38 dBA	100	34 dBA	180	28 dBA	85	35 dBA
3	130	37 dBA	150	36 dBA	150	36 dBA	50	45 dBA
4	90	42 dBA	80	43 dBA	190	36 dBA	120	40 dBA

Notes:

CONTENT COPY OF ORIGINAL

1. Wherever possible, the Source ID must be identical with that used in the ESDM report.
2. Indicate sound level format (L_{eq} or LLM) and units (dBA or dBAI).

Table A3
Acoustic Assessment Summary Table

Point of Reception ID	Point of Reception Description	Sound Level at Point of Reception ¹ (L_{eq})	Verified by Acoustic Audit (Yes/No)	Performance Limit ² (L_{eq})	Compliance with Performance Limit ³ (Yes/No)
POR1	House to North	46 dBA	Yes	54 dBA	Yes
POR2	House to East	46 dBA	Yes	52 dBA	Yes
POR3	Nursing Home to South	41 dBA	Yes	50 dBA	Yes
POR4	School to West	48 dBA	Yes	50 dBA	Yes

Notes:

1. Indicate sound level format (L_{eq} or LLM) and units (dBA or dBAI).
2. Indicate sound level format (L_{eq} , L_{90} or LLM) and units (dBA or dBAI).
3. The response should be “Yes”. “No” is not an acceptable response.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition No. 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the Regulations and this Certificate.
2. Condition No. 2 is included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the Act, the Regulations and this Certificate can be verified.
3. Condition No. 3 is included to require the Company to notify staff of the Ministry so as to assist the Ministry with the review of the site's compliance.
4. Condition No. 4 is included to provide the minimum performance requirement considered necessary to prevent an adverse effect resulting from the operation of the Facility.
5. Condition No. 5 is included to require the Company to gather accurate information and submit an Acoustic Assessment Report in accordance with procedures set in the Ministry's noise guidelines, so that the environmental impact and subsequent compliance with the Act, the regulation and this Certificate can be verified. This condition is also included to require the Company to develop, if necessary, a Noise Abatement Action Plan designed to ensure that the noise emissions from the Facility are in compliance with applicable limits set in the Ministry's noise guidelines.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 8-2115-80-987 issued on November 23, 1998

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

CONTENT COPY OF ORIGINAL

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 14th day of July, 2009

Victor Low, P.Eng.
Director
Section 9, *Environmental Protection Act*

BS/
c: District Manager, MOE Hamilton - District
Bruce Hale, Biedermann Packaging Inc.