

Glass Recycling or Not

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Vermonters for a Clean Environment
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What is Recycling?

Glass Recycling

- **Weak Markets historically**
- **Contamination an issue**
- **Single stream (Zero Sort) creates contamination issues**
- **New glass markets on horizon, yet to develop**

**How does Vermont Solid Waste Management Program
Determine Marketability?**

- **Consults with processors of glass**
- **Consults trade publications**
- **And for Vermont, consults with MRF operators e.g. CSWD and Casella**
- **No standard for establishing marketability / recyclability**
- **In implementation, substantial weight given to representations of CSWD**



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

Waste Management Division
103 South Main Street/West Building
Waterbury, VT 05671-0404
(802) 241-3888
Fax: (802) 241-3296

Acceptable Uses for Processed Glass Aggregate

Original: August 1994,
Revised: July 1996
Revised: January 2002

Introduction:

Glass collected through community recycling programs consists primarily of clear, green, and brown food or beverage containers. Color-sorted glass has the highest resale value in glass container markets, however some glass is broken during transportation or sorting, resulting in a lower value mixed glass cullet. Further, the market price for recycled glass as cullet has decreased in recent years, a trend that is not expected to reverse in the foreseeable future. The Agency of Natural Resources encourages safe and credible alternative uses of recycled glass.

This acceptable use paper, issued by the Solid Waste Management Program, outlines the requirements for the acceptable use of uncontaminated, mixed color, processed glass aggregate (PGA) as a replacement for other natural aggregate materials (gravel, crushed gravel, or crushed stone). Public and private entities can use PGA for the applications listed below without prior authorization from the Solid Waste Management Program.

Definition of Processed Glass Aggregate (PGA):

For the purpose of this document, PGA is mixed glass cullet produced from crushed and screened clean food and beverage containers. China dishes, ceramics, or plate glass shall be limited to 5 percent by mass of glass cullet. Screw tops, plastic rings, paper, labels and other deleterious materials shall be limited to less than 1 percent by mass of the PGA. Cathode ray tubes and fluorescent light bulbs are not allowed as feedstock for PGA. The PGA shall contain no hazardous waste. PGA must be crushed and screened such that 95 percent of the material passes a 25.0 mm screen and not more than three percent of the material passing the 4.75 mm sieve passes the 75 μ m sieve.

**CSWD Processed Glass has been off-spec historically
Options for processed glass with >1% contamination and
can't pass sieve analysis?**

- **Recycle if can find market that covers costs**
- **Landfill with ANR Approval**

Issues with Landfilling - COST EXCEEDS INCOME

**So given the options, what did CSWD decide to do with their off-spec glass?
It created from whole clothe another option, outside of the law.
They dumped it....at the closed Williston Landfill property**















Agency of Natural Resources
Department of Environmental Conservation
Waste Management & Prevention Division
1 National Life Drive, Davis 1
Montpelier, VT 05620-33704

NOTICE OF ALLEGED VIOLATION (“NOAV”)
10 V.S.A. § 8006(b)

Alleged Violator (Respondent): Chittenden Solid Waste District
Sarah Reeves, General Manager
1021 Redmond Rd
Williston VT 05495

CERTIFIED MAIL#
7015 3010 0001 4961 0435

You are hereby put on notice that the Agency of Natural Resources believes that you are in violation of the Vermont Statutes, Regulations, and Permits noted below:

1. *Vermont Solid Waste Management Rules §6-302(d) - Disposal outside a certified facility*
2. *Vermont Solid Waste Management Rules §6-1208 (a) – Failure to accurately report on the destination of waste.*

Description of Alleged Violations:

On 4/3/18, Agency staff observed fill areas containing thousands of cubic yards of discarded crushed glass at two locations on Redmond Road owned by Chittenden Solid Waste District (adjacent to the closed landfill and the compost facility). District staff stated that the glass was non-marketable recycled glass from the MRF (materials recovery facility) owned by the District and located at 357 Avenue C in Williston. Review of Department records found that no approvals have been issued for the storage or disposal of glass at these locations. Review of quarterly reports submitted by the District found that the destination for the glass has been incorrectly reported as “local projects”.

Compliance Directives:

1. Immediately cease the storage or disposal of glass outside of certified facilities and provide accurate quarterly reports.
2. Within 14 days of receipt of this notice, submit all records related to the material, including dates of delivery, volume, gradation analyses, and percent deleterious content analyses.
3. Within 120 days of receipt of this notice, either:
 - a. Remove all glass from the two locations to a certified recycling or disposal facility(ies) permitted to accept the material. Disposal at any location requires prior written approval of the Secretary in accordance with Condition #11 of the MRF certification (SWF ID#CH954); or
 - b. Obtain solid waste certification for the disposal area and comply with all conditions of the certification. If a certification is not issued, removal (per 3a) is required.
4. If the material is removed as described in 3a above, notify the Agency upon the start and the completion of the cleanup, and allow Agency staff to inspect the site.
5. If the material is removed as described in 3a above, within 14 days of delivery of the glass, submit tipping receipts from the receiving facility(ies) to the Agency.

In response to the alleged violation(s), the Agency may issue a Civil Complaint pursuant to 10 V.S.A. Section 8019 which would assess a penalty. The Agency may also issue an Administrative Order pursuant to 10 V.S.A. Section 8008 which would require full compliance with all applicable statutes, rules, and/or permits; assess penalties; and if necessary, require corrective/restorative action and any other measures deemed appropriate. Prompt correction of the alleged violation(s) may lessen the possibility or severity of any enforcement action taken by the Agency. We request a written response within 14 days of receipt of this NOAV, which sets forth the reasons for the existence of the alleged violation and your intentions with respect to prompt correction.

If you have any questions about this notice, call Barb Schwendtner, Solid Waste Compliance Chief, at 802-249-5904.

Vermont Department of Environmental Conservation
Solid Waste Management Program
Solid Waste Management Facility Quarterly or Annual Report
cover sheet

Facility Name: Materials Recovery Facility

SW Facility ID#: CH954

Address: 357 Avenue C, Williston, VT 05495

Reporting Period (1): 2012 Year
 January - March July - September
 April - June October - December
 January - December (Categorical certification only)

Solid Waste Facility Components (check all that apply) :

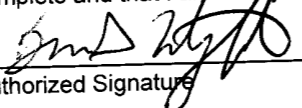
Landfill Recycling Transfer Station Composting
 HHW Collection

Information provided (check all that apply):

Table 1A Table 1B Table 1C Table 1D Table 1E
 Table 2 Table 3 Table 4 (Required for all facilities)

CERTIFICATION:

I hereby certify that I have personally examined and am familiar with the information in this document and all attachments and, that based on reasonable investigation, including my inquiry of those individuals immediately responsible for obtaining this information, I believe that the information is true, accurate and complete and that I am a duly authorized representative of the owner (or permittee).


Authorized Signature

4/25/12
Date

Brian Wright
Printed Name

Facilities Manager
Title or Position

(802) 872-8100 ext. 215
Daytime Telephone #

This form should be submitted to: Cathy A. Stacy, Certification & Compliance Section
Waste Management Division
103 South Main Street
Waterbury, VT 05671-0407

NOTES:

(1) The frequency of reporting depends on the type of facility certification:
- Solid Waste Management Facility Certification or Categorical Disposal Certification- Quarterly Report
- Categorical Certification - Annual Report

Facility Name: Materials Recovery Facility

SW Facility ID#: CH954

Reporting Period (1):

2012 Year

January - March

April - June

July - September

October - December

**TABLE 2
MATERIALS PROCESSED & STORED FOR RECYCLING**

Materials Received MATERIAL TYPE	WASTE CODE	VOLUME CONVERSION or NUMBER	State of Origin			Destination Transferred To (List name)
			VT (Tons)	(Tons)	Total (Tons)	
Single Stream - Fibers & Containers (Drop off locations only)	1S					
Containers:						
Co-mingled Containers	CT	yd. X 0.075				
Glass Containers	GL	yd. X 0.2	2,621.08		2,621.08	Local Projects
Metal Cans (aluminum, bi-metal)	CN	yd. X 0.05	194.19		194.19	Triple M, JMG Anheuser-Bush Recycling Haycore, FCR Goodman
Plastics, PET (#1)	PE	yd. X 0.016	172.71		172.71	Haycore, Mohawk Ind.
Plastics, HDPE (#2)	HD	yd. X 0.017	200.13		200.13	Envision Plastics, KW Plastics, Haycore
Other Plastic	PO	yd. X 0.0175	44.06		44.06	FCR Goodman
Fibers:						
Co-mingled Paper (Drop off locations only)	FC	yd. X 0.1				
Books	BK	yd. X .23				
Boxboard/Paperboard	BX	yd. X 0.05	0.00		0.00	
Corrugated Cardboard	CC	yd. X 0.05	3,467.77		3,467.77	Kruger , Solvay, SCA Tissue NA
Magazines	MA	yd. X 0.2	0.00		0.00	
Mixed Paper	OP	yd. X 0.125	45.03		45.03	SCA Tissue NA
Newspaper	NP	yd. X 0.2	3,279.86		3,279.86	Kruger

QUARTERLY DISPOSAL, RECYCLING AND COMPOSTING FACILITY REPORTS

QUARTER 1 | 2013

Member Name: CSWD Material Recovery Facility

Member Alias: CH954

Instructions:

Fill out report for waste materials, recycled materials, reused materials and organics collected at the facility. If you require assistance filling out this form, please email Aric Brown, Program Manager: aric.brown@vermont.gov.

Facility ID: *

CH954

Source Tonnages

Identify all sources of waste collected at the facility during the reporting period. The facility may have accepted waste from both in-state and out-of-state sources:

In-State

Out-of-State

For in-state (and out-of-state, if applicable), select a material type accepted by the facility; specify the municipality (state) from which it came, and the amount by weight (in tons). A material type should be entered more than once if the facility accepted it from multiple municipalities (states).

Repeat for all material types that were accepted at the facility during the reporting period (add lines by clicking the Add button).

In State (Tons)

	SELECT MATERIAL *	SELECT MUNICIPALITIES SERVED: *	TONS:	NOTES:
1	Single Stream	CHITTENDEN SOLID WASTE DISTRICT	9,758.55	

Destination Tonnages

Identify the fate of materials that were accepted at the facility during the reporting period. You may select as many as necessary:

Transferred Off-site

Reused

Organics

Alternative Daily Cover or Used for Road Base

Landfilled

State the immediate fate for each material type; specify the destination/activity, and the amount by weight (in tons). A material type should be entered more than once if there were two or more immediate endpoints.

Example: If Cambridge Transfer Station collects MSW and sends it to the Hyde Park Transfer Station which then sends it to the Waste USA Landfill, the immediate fate of the MSW at Cambridge Transfer Station would be (Transferred Off-Site) to (Waste USA Landfill); the immediate fate of the MSW at Waste USA would be (Landfilled).

Example: If the Stowe Transfer Station collects organic material and sends it to Grow Compost which then composts the material, the

CSWD MRF	Class Reported	Tonnage	
2008	Jan-Mar (Q1)	519,62	- Local Projects
	April-June (Q2)	898,01	"
	July-Sept (Q3)	2144,42	- "
	Oct-Dec (Q4)	1485,67	"

2009	Q1	2458,40
	Q2	2980,70
	Q3	
	Q4	1485,67

2010	Q1	2334,30
	Q2	1195,32
	Q3	1642,13
	Q4	2027,18

2011	Q1	66,85
	Q2	
	Q3	1543,25
	Q4	2987,38

2012	Q1	175,86
	Q2	2621,08
	Q3	2294,73
	Q4	223,13

RETRAC

2013	Q1	1774,93
	Q2	1810,10
	Q3	2141,04
	Q4	1278,36

		TONNAGE	END DESTINATION
2014	Q1	2989.63	Local Projects
	Q2	1375.77	"
	Q3	313.10	"
	Q4	2614.07	"
2015	Q1	298.32	PGA for Local Projects
	Q2	2837.11	Local Projects
	Q3	1561.91	PGA for Local Projects
	Q4	1212.53	Local Projects
2016	Q1	2012.95	"
	Q2		
	Q3	723.03	"
	Q4	2179.30	"
2017	Q1	1647.79	
	Q2	2094.02	"
	Q3	396.93	
	Q4	2093.38	"
2018	Q1	2509.06	(Left Blank)
	Q2	(Submitted Jul 27, 2018) 1383.93	(Whitcomb)
	Q3	(Submitted Oct 26, 2018) 1574.88	(Left Blank)
	Q4	(Jan 30, 2019) 1084.66	(Whitcomb)

Range ~ 6K - 7K tons/Yr

If dumped 6000 tons/year x 10 years
= 60,000 tons for 2008-2017

Cost to haul to landfill @ 120/ton

Tax evaded @ \$7/ton = \$ 420,000.00

Economic Gain @ \$120/ton cost of disposal = \$ 7.2 M

This is conservative estimate
Does not include years 2004, 2005, 2006, 2007

VERMONT **GENERAL ASSEMBLY****The Vermont Statutes Online**

The statutes were updated in November, 2018, and contain all actions of the 2018 legislative session.

Title 13 : Crimes And Criminal Procedure**Chapter 067 : Public Justice And Public Officers**

(Cite as: 13 V.S.A. § 3016)

§ 3016. False claim

(a) A person shall not, in any matter within the jurisdiction of a supervisory union school district or of any commission, board, department, or agency of the State or a county or municipality, with intent to defraud, falsify, conceal, or cover up by any trick, scheme, or device a material fact, or with intent to defraud make any false, fictitious, or fraudulent claim or representation as to a material fact, or with intent to defraud make or use any writing or document knowing the same to contain any false, fictitious, or fraudulent claim or entry as to a material fact.

(b) A person who violates this section shall, if the prohibited act results in no loss to a governmental entity or benefit to the person or results in a loss to a governmental entity or benefit to the person of less than \$500.00 in value, be imprisoned not more than two years or fined not more than \$5,000.00, or both. A person who violates this section shall, if the prohibited act results in a loss to any governmental entity or a benefit to the person of \$500.00 or more in value, whether by a single act or by a common scheme or course of conduct involving one or more transactions, be imprisoned not more than five years or fined not more than \$10,000.00, or both.

(c) A person who commits an act punishable under 33 V.S.A. § 2581(a) or (b) may not be prosecuted under this section. (Added 1987, No. 48, § 6.)

The Vermont Statutes Online

The statutes were updated in November, 2018, and contain all actions of the 2018 legislative session.

Title 10 : Conservation And Development

Chapter 159 : Waste Management

Subchapter 001 : General Provisions

(Cite as: 10 V.S.A. § 6605)

§ 6605. Solid waste management facility certification

(a)(1) No person shall construct, substantially alter, or operate any solid waste management facility without first obtaining certification from the Secretary for such facility, site, or activity, except for sludge or septage treatment or storage facilities located within the fenced area of a domestic wastewater treatment plant permitted under chapter 47 of this title. This exemption for sludge or septage treatment or storage facilities shall exist only if:

(A) the treatment facility does not use a process to reduce pathogens further in order to qualify for marketing and distribution; and

(B) the facility is not a drying bed, lagoon, or nonconcrete bunker; and

(C) the owner of the facility has submitted a sludge and septage management plan to the Secretary and the Secretary has approved the plan. Noncompliance with an approved sludge and septage management plan shall constitute a violation of the terms of this chapter, as well as a violation under chapters 201 and 211 of this title.

(2) Certification shall be valid for a period not to exceed 10 years.

(b) Certification for a solid waste management facility, where appropriate, shall:

(1) Specify the location of the facility, including limits on its development.

(2) Require proper operation and development of the facility in accordance with the engineering plans approved under the certificate.

(3)(A) Specify the projected amount and types of waste material to be disposed of at the facility, which, in case of landfills and incinerators, shall include the following:

(i) if the waste is being delivered from a municipality that has an approved implementation plan, hazardous materials and recyclables shall be removed from the waste according to the terms of that implementation plan;

(ii) except as provided in subdivision (B) of this subdivision (3), if the waste is being delivered from a municipality that does not have an approved implementation plan, leaf and yard residuals shall be removed from the waste stream, and 100 percent of each of the following shall be removed from the waste stream: mandated recyclables, hazardous waste from households, and hazardous waste from small quantity generators.

(B) If waste delivered to the facility is process residuals from a material recovery facility, the facility receiving the waste shall not be required to remove 100 percent of mandated recyclables from the process residuals if the facility receiving the waste has a plan approved by the Secretary to remove mandated recyclables from the process residuals to the maximum extent practicable.

(4) Specify the type and numbers of suitable pieces of equipment that will operate the facility properly.

(5) Contain provisions for air, groundwater, and surface water monitoring throughout the life of the facility and provisions for erosion control, capping, landscaping, drainage systems, and monitoring systems for leachate and gas control.

(6) Contain such additional conditions, requirements, and restrictions as the Secretary may deem necessary to preserve and protect the public health and the air, groundwater, and surface water quality. This may include requirements concerning reporting, recording, and inspections of the operation of the site.

(c) The Secretary shall not issue a certification for a new facility or renewal for an existing facility, except for a sludge or septage land application project, unless it is included in an implementation plan adopted pursuant to 24 V.S.A. § 2202a, for the area in which the facility is located.

The Vermont Statutes Online

The statutes were updated in November, 2018, and contain all actions of the 2018 legislative session.

Title 10 : Conservation And Development

Chapter 201 : Administrative Environmental Law Enforcement

Subchapter 003 : Enforcement

(Cite as: 10 V.S.A. § 8010)

§ 8010. Administrative penalties

(a) An administrative penalty may be included in an administrative order issued under section 8008 of this title or in an emergency administrative order issued under subdivision 8009(a)(1) or (3) of this title. An order assessing administrative penalties shall be accompanied by an affidavit setting forth the facts establishing the date of violation.

(b) In determining the amount of the penalty, the Secretary shall consider the following:

- (1) the degree of actual or potential impact on public health, safety, welfare, and the environment resulting from the violation;
- (2) the presence of mitigating circumstances, including unreasonable delay by the Secretary in seeking enforcement;
- (3) whether the respondent knew or had reason to know the violation existed;
- (4) the respondent's record of compliance;
- (5) [Repealed.]
- (6) the deterrent effect of the penalty;
- (7) the State's actual costs of enforcement; and
- (8) the length of time the violation has existed.

(c)(1) A penalty of not more than \$42,500.00 may be assessed for each determination of a separate violation. In addition, if the Secretary determines that a violation is continuing, the Secretary may assess a penalty of not more than \$17,000.00 for each day the violation continues. The maximum amount of penalty assessed under this subsection shall not exceed \$170,000.00.

(2) In addition to any penalty assessed under subdivision (1) of this subsection, the Secretary may also recapture economic benefit resulting from a violation up to the \$170,000.00 maximum allowed under subdivision (1) of this subsection.

(d) Notwithstanding the provisions of subsection 8003(b) of this title, imposition of an administrative penalty under this section precludes imposition of any other administrative or civil penalty under any other provisions of law for the same violation.

(e) Penalties assessed under this section shall be deposited in the General Fund, except for:

- (1) those penalties which are assessed as a result of a municipality's enforcement action under chapter 64 of this title, in which case the municipality involved shall receive the penalty monies; and
- (2) those penalties that are assessed as a result of the State's actual cost of enforcement in accordance with subdivision (b)(7) of this section, in which case the penalties shall be paid directly to the Agency of Natural Resources. (Added 1989, No. 98, § 1; amended 2001, No. 133 (Adj. Sess.), § 7, eff. June 13, 2002; 2007, No. 191 (Adj. Sess.), § 5; 2009, No. 146 (Adj. Sess.), § F23.)

In Conclusion:

**Until markets open for non-spec glass, use as landfill road and drainage
Require ANR to develop standards for determining existing markets/marketability**